SECRET

AIRCRAFT ACCIDENT
N800X (342)
25 FEB 1966

Commander's file

SECRET

AIRCRAFT ACCIDENT INVESTIGATION N800X (342)

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AIRCRAFT ACCIDENT ARTICLE 342 (N800X)

NARRATIVE OF EVENTS: Article 342, a U-2F model took off from Edwards North Base at 1730Z 25 Feb 1966 to practice in flight refueling procedures in conjunction with a KC-135 tanker from Beale AFB. The pilot of the U-2 was [redacted] No fuel was to be transferred from the KC-135, all hookups being dry. The altitude at which the practice was to take place was 35,000 feet, within the Edwards restricted area and this region was confirmed as being free of turbulence by a T-33 flight prior to the IFR practice. The total fuel on board the U-2 at take-off was 690 gallons, the sump and auxiliary tanks being full and the remainder of the fuel, 295 gallons, being in the main tanks. 25X1A

1. A total of nine dry hookups were completed and terminated with a practice emergency breakaway by the U-2. The conditions were perfectly smooth at flight altitude and the boom operator stated that the contacts were the best and smoothest he had ever witnessed, in fact most of the contacts were made without the boom operator even having to maneuver his boom, the U-2 pilot just sliding gently into the contact position. At no time did the U-2 get out of the correct position while in contact, with virtually no lateral corrections and just minor vertical corrections on 2 or 3 occasions. On the very first contact the boom operator noticed slight fuel vapor escape from the U-2 receptacle which dampened the top of the fuselage for about one foot back from the receptacle. Thereafter he noticed no vapor either on contacts or disconnects.

2. After the final breakaway, the U-2 dropped back and down and moved out to the right of the tanker and came alongside, some 200 feet off the right wing tip, very slightly forward and above. The U-2 had the gust control in the up position at this time as was the case from just after take-off. Speed during refueling practice was 200 knots IAS and as the U-2 came alongside was 210-220 knots IAS. The KC-135 captain did notice the wings of the U-2 flexing maybe one to two feet but the co-pilot remarked that the wing flexing was very slight as the U-2 came alongside and then it was very stable. The navigator saw one little bounce of the wings and from thereon all was smooth. The co-pilot also noticed that the speed brakes were out when the U-2 was in formation but were retracted just before or as the climb was commenced.

3. The U-2 stayed alongside for about one to two minutes and then commenced a climb, estimated as a normal climb for a U-2 by the KC-135 observers and as a pull up into the climb that produced less pressure on him than normally felt when rotating the aircraft after take-off by the U-2 pilot.

4. Shortly after the U-2 started the climb away it disappeared from the captain's view and was visible by only the co-pilot and the navigator who were watching out of the right side of the tanker. It was visible to these two observers continuously until the moment of disintegration with the boom operator able to observe the condensation trail only. The co-pilot and navigator stated that the U-2 climbed to about 500 feet to 1,000 feet above them, dropping back slowly before commencing a turn to the right although the U-2 pilot did state that he performed a right turning climb. As the U-2 had reached a 30 degree right bank the co-pilot noticed a fuel spray which appeared to be coming from the underside of the fuselage close to where the left wing is attached. The navigator also saw this, but thought the source was somewhere between the left wing root and one third of the way outboard towards

the wing tip. The navigator also noticed a smaller vapor stream from the left wing tip, but was not certain whether these vapor streams occurred before, or at the time of the breakup. Just one to two seconds later both of these observers saw what they thought was almost certainly the left wing of the U-2 break off at the wing root and fold up and back as one whole piece and drift from their view. The remainder of the aircraft rolled sharply to the right and started to rotate or spin. The co-pilot stated that the aircraft then virtually disintegrated, the only two portions recognisable being a large portion of the nose (He later pointed out a section on a model from the windshield forward.. In fact it was the complete fuselage section forward of the wing leading edge) and the bare engine, just as one would see it on a test standwith pipes and accessories attached to it but nothing else and it appeared a yellow/gold color with no tail pipe attached. He, (the co-pilot) did not notice anything of the tail or the right wing. He later stated he could not be certain that it was the left wing that broke off initially because he thought that if that was the case, then the remainder of the aircraft should have rolled to the left instead of the right. However he reaffirmed the fact that it must have been the left wing because it broke off at the place he saw the fuel spray coming from and that because of his angle of view, he could not have seen the right wing break off at the root as well as he could have seen the left wing.

5. After the navigator saw the left wing break off at the root (which he said seemed to occur at the instant the aircraft started the bank to the right) he saw the aircraft roll more sharply to the right with a wobbling motion in a very nose high attitude and then maybe the right wing break in half or more, followed by just a thousand pieces, such as a jigsaw puzzle thrown in the air, the only distinguishable item being the bare engine with nothing attached to it, drifting slowly down and back from the tanker.

6. The boom operator was watching the U-2 contrail (he has a 45 degree view to each side from directly aft) when the co-pilot shouted that the wing had come off. Shortly afterwards he saw debris come past his window with just one unidentifiable large piece and out of the debris appeared the pilot, sitting in his seat with his back mostly towards him and legs tucked in, just as if he was sitting in a chair, at about eye level. This was the only object the boom operator then kept his eye on. As the U-2 pilot drifted back and down he appeared to cross behind the boom operator. The pilot was just about out of his sight when he saw what he thought to be a small cloud of dust. The tanker then turned and the boom operator lost sight of the U-2 pilot until the next time around when he saw the chute deployed. At no time did the boom operator notice any fire. When he last saw the pilot there was debris around him and could not detect specifically the pilot/seat seperation. Very shortly after the break up of the U-2, the boom operator said over the tankers intercom system that he had the pilot. The tanker captain then broadcast the fact that they had a chute. This was corrected by the boom operator who told his captain he had the pilot but no chute yet. The tanker captain then broadcast this information. The boom operator may have seen the chute open but the first positive information came from the accompanying T-33 aircraft, the pilots of which had been observing the refueling practice. At the moment of disintegration of the U-2, the T-33 was turning for home and was two miles from the incident. One T-33 pilot thought at first he saw three contrails above the U-2, then that the tanker was shooting flares then the realization that the U-2 had disintegrated. The other T-33 pilot saw what appeared to be a phosphor bomb explosion with a number of objects falling, trailing vapor and glowing for a second or so.

7. These pilots orbited the debris and spotted the open parachute with one wing falling leaflike about two miles from the pilot. The U-2 pilot was seen to touchdown and in fact waved to the T-33 to indicate that he was in good condition. There was a partial overcast in the area at the time and the T-33 pilots had difficulty in relocating the downed U-2 pilot due to mountainous terrain as well. However the U-2 pilot was transmitting on his emergency radio and the KC-135 was orbiting the spot squawking "mayday" on his IFF. A rescue helicopter was dispatched from Edwards main base within five minutes of the occurrence and the U-2 pilot returned to WRSP-IV within two hours.

25X1A

[redacted]

Investigating Officer

TAB

CONCLUSIONS:

1. The primary cause of the accident was the type of maneuver executed by the pilot.

2. This maneuver was a right climbing turn at 35,000 feet at an indicated airspeed of 210-220 knots (mach no. 0.63-0.66) with the aircraft in the clean configuration and the gust control in the "UP" or "ON" position.

3. The positive "G" applied by the pilot was within the limits designated in the pilot's handbook and the indicated airspeed was within the limit (240 KIAS) for the type of aircraft configuration.

4. The left wing failed at the root at the same time as aileron was being applied, (left aileron down). This application of aileron, at the same time as positive "G" was being exerted, applied a twisting moment to the wing at the same time as it was subjected to a bending momemt at a high airspeed. The design characteristics of the wing are such that there is an aerodynamic tendency for it to twist leading edge up about the flexural axis. Downgoing aileron exerted an opposing twist and the resultant effect was that an additional up load was placed on the outer wing causing it to bend upwards and thus produce a levering moment about the root attachment which was the area of the initial structural failure.

5. The location of the fuel at the time of the accident was in the sump and the auxilliary wing tanks, the fuel in the main tanks being exhausted. This placed the weight of the fuel mainly inboard on the wings, thus allowing the outer wing to bend further upwards, adding to the unfavorable wing bending moment exerted by the aileron and "G" forces.

6. After the left wing broke away, the rest of the aircraft pitched nose up, yawed and rolled to the right. The forces exerted during this motion were such that the engine broke loose from it's mountings and through the lower fuselage. Gyroscopic forces would have been very powerful. The right wing, with a portion of the fuselage then broke away. Thus the complete middle of the fuselage was gone and the forward fuselage, (gear bay, Q bay, cockpit and nose) and aft fuselage, including all tail surfaces, (except the left horizontal stabilizer and elevator) were recovered as complete units.

7. The left horizontal stabilizer and elevator were probably struck by the left wing as it came off and have not been found.

[redacted]

25X1A

Investigating Officer

TAB

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LIFE SCIENCES COMMENTS AND RECOMMENDATIONS

Ejection from the aircraft was elected when disintegration was obvious (pilot noted one wing had come off). His first action was to assume the ejection position. When he reached for the ejection handle, he automatically went for T-33 handles. This instinctively prompted action doubtlessly was due to numerous hours of experience aquired in the T-33 as compared to the pilot's U-2 experience. However, with over 1300 hours in the U-2, one cannot blame inexperience. Dual qualification in T-33 and U-2 is necessary and it is felt that no amount of training will overcome an automatic reflex to reach for the ejection handles of the aircraft with which the pilot is more familiar. The pilot saw the canopy leave the aircraft and felt the boost of the seat firing. Seat separation was without complication and evidence shows that no hanging-up of Q-445 seat pack and seat occured. Another automatic reaction was evidenced during descent when, after trying basic sky-diving techniques, the pilot felt he could not be sure of how far he was above ground and elected to deploy the parachute. A predilection caused him to reach for a left hand D-ring. The D-ring on parachutes used in our particular aircraft is located on the pilot's right. This automatic reaction was not unexpected. No recommendation is made to change the position of the D-ring. The zero lanyard causes faster opening than human reaction for low altitude escape. Automatic function of the parachute, activated by the F-1B release assembly, is extremely reliable for high altitude. When the pilot saw he was nearing the ground, he prepared for the landing. The landing was uneventful.

While descending, the pilot noted that his right boot was torn. The boot was a standard ten inch black boot. However, a knife sheath had been sewn on the lateral surface of the boot. No knife had been carried in the sheath and, although the sheath was torn, the lace of the boot had also been snagged. The boot was ripped posteriorly lateral to the left posterior seam. The tear extends downward from the top of the boot for a distance of six inches. The lacing and lateral surface of the boot snagged on some object in the cockpit, presumably the canopy opening handle. This handle had been bent and fractured.

A two inch gash and green paint on the right side of the helmet was incurred during cockpit buffeting and aircraft break-up prior to ejection. The helmet was not lost even though the pilot had not lowered its visor. Credit for the retention of the helmet is due primarily to its excellent fit.

During descent considerable body oscillation was noted and could not be corrected by pulling risers, etc. Kit deployment increased oscillation. The pilot elected not to cut the red marked suspension lines. This action will decrease oscillation by spilling a section of the parachute canopy.

A powder burn silhouette was found on the pilot's coveralls and flight jacket in a pattern outlining the position of the leather pad under the belt fastener. A small hole was burned in

the flight jacket. Chemical analysis showed the hole was burned by high velocity gas escaping from the release vent on the opening mechanism. Although this caused no harm to the pilot on this ejection, it is possible that a hole could be burned in the pressure suit bladder on high altitude ejection. That would be fatal to a pilot.

During ejection, the Q-145 quick disconnect locking pin broke at the point of entry into the lock. There is evidence that the pull on the QD was indirect. The QD may have been hit by the lip of the front of the seat bucket, breaking the release pin and jamming the automatic oxygen pin. However, the pilot did have sufficient oxygen flow for descent because the initial pull on the QD activated his emergency oxygen supply.

After landing, the pilot used his URC-10 radio to contact the rescue aircraft. His URT-21 rescue beacon was functioning automatically and causing interference with the URC-10 operation until the pilot realized this and turned off the URT-21 beacon.

In summary, the ejection was totally successful and all Personal Equipment gear functioned normally. It is to the pilot's credit that he handled this entire emergency with complete composure and was at all times in control of the situation. No panic reactions were present at any time. He was at all times calm and "thought out" every move.

25X1A

Major, USAF, MC
Senior Flight Surgeon

TAB

RECOMMENDATIONS

Recommendations of Investigating Officer:

1. The "G" limitations as indicated by the flight strength diagrams in the pilots handbook be reduced when a rolling maneuver is being executed, particularly at higher indicated airspeeds.

2. The fuel placement not to be such that a condition is arrived at whereby the auxilliary tanks are full and the main tanks empty.

[redacted] 25X1A

Investigating Officer

Recommendations of Senior Flight Surgeon, [redacted] 25X1A

1. That ejection procedures for U-2 aircraft continue to be repeatedly stressed to pilots.

2. That parachute utilization training be stressed to re-emphasize the position of the D ring on our parachutes and cutting of red marked suspension lines during descent to reduce oscillation which allows directional control.

3. That the canopy opening handle be redesigned to eliminate possible snagging of pilot's clothing or gear on ejection.

4. That the prime contractor re-evaluate the lap belt with possible redesign to prevent explosive flash from causing damage to the pressure suit.

5. That the prime contractor re-evaluate the Q-445 quick disconnect to insure positive action separation.

[redacted] 25X1A

Senior Flight Surgeon

TAB

S T A T E M E N T WITNESS # 1

1. On 25 February 1966 I was scheduled for a one hour refueling mission in A/C 342. Since it was a low mission I was wearing light weight navy flying suit with a T-shirt and long underwear, "jump" boots, flight jacket and P-4 helmet. Briefing, pre-flight, cockpit check, start and taxi were normal. Before take off the seat pin, canopy jettison guard and seat kit pin were removed; the low altitude escape lanyard was attached. Take off at 0930 was normal. During the climb check I unlatched the low altitude escape lanyard, selected the gust position and switched the main tank pressurization switch from repressurize to normal.

2. I climbed to FL350 at a low power setting. During the climb I noted that the trim was 8 degrees nose down which was unusual for 342 but not for the fuel loading and cg for this flight. The tanker performed a perfect rendevous at approximately 0950. I moved into position and made approximately 9 dry hookups. All the contacts appeared to be smooth and normal. The cockpit refueling lights also appeared to be working normally. At approximately 1015 I performed a practice breakaway to the right.

3. After the breakaway I pulled up to the right side of the tanker to assure the pilot I was clear of his aircraft. I was approximately 300 feet to the right, slightly above and ahead of the tanker. I was in this position only a minute or so. During that time I was indicating about 210 knots, had the speed brakes out, gear up and was still in the gust position.

4. I retracted the speed brakes and initiated a climbing turn to the right away from the tanker. As soon as I started adding aileron I felt a slight shudder and immediately thereafter heard a loud crunching noise. Immediately I was completely out of control of the aircraft and being tossed vigorously about the cockpit. My first instinct was to right the airplane but the yoke had no affect. I looked out the right side and saw that the right wing was gone. I assumed the proper ejection position and reached for the T-33 ejection handles. I realized my mistake and reached for the U-2 ejection "D" ring. Although I was still being thrown about the cockpit I had no trouble reaching or pulling the "D" ring. The canopy appeared to eject normally; however, I felt very little impact when the seat fired. The next thing I remember I was tumbling in space and free of the ejection seat.

5. I tried using the sky diving technique to decrease the tumbling and it worked better than expected. I couldn't force myself to wait for the automatic timer since I had no idea of my altitude. I reached for the parachute "D" ring over my heart and nearly panicked to find it missing. I immediately found it on the right side and pulled it with both hands. I felt a relieving but definite jolt when the chute deployed.

6. On the way down I was swaying profusely in about a 90 degree arc; I was very cold and becoming nausious. I could see debris from the airplane floating down all around me into a cloud deck below. My wrist watch showed it was approximately 1023. Since I had taken off with a wind of nearly 25 knots I was preparing for a rough landing. I tightened my helmet chin strap, used the seat kit release handle to extend the survival kit below me and removed the parachute release guards. The cloud layer was very thin and only a couple thousand feet above the ground. The terrain looked very mountainous and rough. I was drifting backwards when I hit heels first but was able to immediately release the chute. Although I took a good jolt on the back of my head, I was conscious and mobile and quickly got out of the parachute harness and waved that I was OK to the T-33 that had followed me down. I made contact with the tanker on the URC 10 but was unable to read them because of a background signal caused by the URT 21. I also used the URC 10 to help guide the rescue helicopter and I was safely on my way out within an hour of the time of the accident.

25X1A [redacted] (Witness) [redacted] 25X1A

E-1

S T A T E M E N T

25 February 1966

25X1A

CREW POSITION: Aircraft Commander, KC-135 Aircraft

1. I, [redacted] having first been advised that the purpose of this investigation is not to obtain evidence for use in disciplinary action, or for determining pecuniary liability or line-of-duty status, or to revoke commission or remove from the active list under the provisions of AFR 36-2, or for use before a Flying Evaluation Board, but rather is to determine all factors relating to the accident/incident, and, in the interest of accident prevention, to avert recurrence, do hereby make the following voluntary statement.

25X1A 2. [redacted], Aircraft Commander, KC-135 for three and one half years, 2900 hours flying time, 1900 in KC-135 occupying pilot's position, left seat KC-135, 59-1513 on 25 February 1966 at approximately 1818Z when [redacted] disintegrated in flight. 25X1A

25X1A 3. After approximately :30 minutes of practice air refueling with U-2 aircraft, [redacted] in Restricted Area R 2508 at FL 350 the receiver aircraft called a practice breakaway which was successfully completed. He then pulled up besides the KC-135 and flew formation at 220 KIAS for a couple of minutes. Next he started a climb and disappeared from my sight almost immediately the co-pilot, [redacted] said, "his wing is coming off", I said, "what?", reply "his wing is coming off, he's in a spin, he's disintegrating", at which time I called [redacted] 25X1A
25X1A and [redacted] a chase plane and told them [redacted] had disintegrated in 25X1A
flight. I proceed down flying cover at 12,000' until [redacted] left the 25X1A
Area with low fuel. Then I went down to 8500' just above the cloud tops. I made UHF contact on 243.0 with the pilot but could not understand him until I could get him to turn off his personal locator beacon which was transmitting on the same frequency (243.0 Guard). I made 25X1A
25X1A several calls to [redacted] and to recovery "choppers" and again to [redacted]
25X1A [redacted] another chase that was scrambled. After the pilot pickup I was released to return to my home base.

4. I do not know why aircraft disintegrated. Also, there is a need to brief pilots on the fact that locator beacon will jam emergency radio if not turned off prior to transmission.

5. The above statement is true to the best of my knowledge and belief.

25X1A

WITNESS [redacted]

SIGNATURE [redacted] 25X1A

E-2

S T A T E M E N T

25 February 1966

CREW POSITION: Co-Pilot, KC-135 Aircraft

25X1A 1. I, [redacted], 903rd Air Refueling Squadron, having first been advised that the purpose of this investigation is not to obtain evidence for use in disciplinary action, or for determining pecuniary liability or line-of-duty status, or to revoke commission or remove from the active list under the provisions of AFR 36-2, or for use before a Flying Evaluation Board, but rather is to determine all factors relating to the accident/incident, and, in the interest of accident prevention, to avert recurrence, do hereby make the following voluntary statement.

25X1A 2. I am [redacted] KC-135 co-pilot, 600 hours total time, about 400 in this type airplane, location in plane was co-pilot position.

25X1A 3. I am [redacted] On 25 February 1966, I was co-pilot on a KC-135 at the time of the accident. I have 600 total time of which 400 are in this type airplane, and I have been a tanker co-pilot for approximately 9 months. At the time of the accident, I was in the co-pilot's seat looking directly at the other aircraft. The aircraft had finished practicing, and had pulled up on our right wing to fly formation for about 1 minute. Then he pulled up in what appeared to be a normal takeoff attitude for this aircraft for what I thought was his climb back to altitude, then started a right bank. I was looking at him all the time. The first thing I noticed was fuel spray after his initial pull up, and it appeared to be coming from underneath the aircraft slightly aft of the wing, but very close to the wing root where it is attached to the fuselage. I didn't think this odd because I've seen these type aircraft takeoff before and known them to siphon a little fuel and I didn't know where the fuel port or salve drain was. The next thing I observed happed about 2 seconds after I noticed the spray. His left wing buckled at the wing root and went up and over the top and back of the plane. Next the airplane started a moderately fast roll, almost a spin, to what I recall to be to the right. Almost immediately the airplane seemed to tear apart in all directions and then began to fall behind us. I noticed two main parts of the plane (along with all the small debris), the engine, and a large section of the nose which seemed to be pretty much intact; everything else just disintegrated. In my opinion, the aircraft was due to structural failure of the airplane. It was not an explosion but more of a gradual disintegration which increased rapidly when the airplane started rolling.

4. Omitted.

5. The above statement is true to the best of my knowledge and belief.

25X1A [redacted]

WITNESS SIGNATURE [redacted] 25X1A

E-3

S T A T E M E N T

25 February 1966

CREW POSITION: Navigator, KC-135 Aircraft

25X1A 1. I, [redacted] 903rd Air Refueling Squadron, having first been advised that the purpose of this investigation is not to obtain evidence for use in disciplinary action, or for determining pecuniary liability or line-of-duty status, or to revoke commission or remove from the active list under the provision of AFR 36-2, or for use before a Flying Evaluation Board, but rather is to determine all factors relating to the accident/incident, and, in the interest of accident prevention, to avert recurrence, do hereby make the following voluntary statement.

25X1A 2. This is [redacted] Navigator on KC-135 with 7 years rated service. I was standing behind the co-pilot's seat
25X1A watching [redacted] at the time of the accident.

25X1A 3. Call Sign [redacted] had just pulled abeam our right wing. At this time a few comments were made between cockpits about the wonderful job of refueling which he had just completed. Then I observed [redacted] 25X1A climbing after a short climb he started a slight turn to the right. I observed fuel or vapor coming from the left wing. Right then the left wing buckled at the base of aircraft and left the aircraft. The aircraft then proceeded to disintegrate. I lost sight of the pieces as they passed too far behind the aircraft. After a turn, we spotted a parachute and hovered until aid arrived.

4. I have no opinion as to why the left wing would come off the aircraft.

5. The above statement is true to the best of my knowledge and belief.

25X1A

WITNES [redacted]

SIGNATURE [redacted] 25X1A

E-4

S T A T E M E N T

25 February 1966

CREW POSITION: Boom Operator, KC-135 Aircraft

25X1A

1. I, [redacted] 903rd Air Refueling Squadron, having first been advised that the purpose of this investigation is not to obtain evidence for use in disciplinary action, or for determining pecuniary liability or line-of-duty status, or to revoke commission or remove from the active list under the provision of AFR 36-2, or for use before a Flying Evaluation Board, bur rather is to determine all factors relating to the accident/incident, and, in the interest of accident prevention, to avert recurrence, do hereby make the following voluntary statement.

25X1A

2. I, [redacted] age 37, boom operator on Crew J-75, with seven (7) years experience and 1800 flying hours. I was the boom operator on KC-135A, 59-1513 on 25 February 1966.

3. I heard the co-pilot call on interphone "he has lost a wing". At this time I was watching out the right side of the aircraft from the boom pod and had the contrail of [redacted] in sight. Almost the instant the co-pilot made the statement above, I saw debris and the pilot of [redacted] I watched him to see if the parachute was going to deploy but lost sight of him as our airplane made a turn.

25X1A

25X1A

4. I completed approximately nine (9) dry contacts with [redacted] and all the contacts were in my opinion, excellent. [redacted] was very stable, in fact was one of the most stable receivers I have every made contacts with. I do not know what caused the accident.

25X1A

25X1A

5. The above statement is true to the best of my knowledge and belief.

25X1A

WITNESS [redacted]

SIGNATURE [redacted]

25X1A

E-5

S T A T E M E N T

25X1A

2 March 1966

[redacted] and myself had observed the refueling operations in
25X1A a T-33A with a call sign of [redacted] The entire practice refueling operation had gone very smoothly. It had been noted by both [redacted] and myself 25X1A that the indicated airspeed during the refueling had been 197 Knots. At no time was the airspeed observed to be above 200 KIAS. The refueling U-2, 25X1A
25X1A whose call sign was [redacted], informed the tanker that he would make a break-
25X1A away maneuver during his last hookup. Upon completion of this he informed the tanker that he would come up along their right side. At this time [redacted] was flying the T-33 from the rear cockpit and he turned ~~turned~~ about thirty degrees to the left and commenced a gentle descent towards North Base. I was looking toward North Base when I heard a radio transmission that caused me to look in the direction of the tanker. Slightly behind and about the same altitude as the tanker it appeared as though a phosphorus shell had exploded. I would estimate our position at this time as about one to two miles left of and five thousand feet below the tanker. A number of objects were falling in the sky in the area where it appeared that an explosion had occurred. Several of these falling objects appeared to be trailing smoke or vapor for a short time and the ones trailing smoke or vapor appeared to have a phosphorescent glow which lasted for only a second or so. This appeared to be fire. At this time I took control of the airplane and turned towards the falling objects one of which appeared to be larger than all of the others and falling more slowly. As we got closer to this object it appeared to be one of the wings. From this time on no falling objects other than the pilot and this wing were observed. I commenced circling in the general area of the
25X1A falling object when [redacted] spotted a descending parachute. I then took up an orbit around the parachute and once passed close enough to see the pilot waving to us. I continued this orbiting until the pilot was about to enter the edge of an undercast. During the descent [redacted] and I 25X1A observed the falling object enter the undercast at an estimated two miles distance from the pilot. Also during the descent and just prior to the pilot entering the undercast we observed the seat pack release and hang below the pilot. Just as the pilot entered the undercast I headed the airplane towards the the edge of the undercast and upon reaching the edge I made a turn and 25X1A
25X1A heard [redacted] say, "There He Is". Just then I saw the pilot and parachute touch down. I headed the airplane towards this area and [redacted] and I both observed the pilot on the ground. I made several more passes in the area of the downed pilot before my fuel state requires me to return to North Base for landing.

25X1A

25X1A [redacted]

(Witness)

[redacted]

E-6

S T A T E M E N T

28 February 1966

1. I was flying in a T-33 with [redacted] off the wing of the KC-135 and the U-2 during air refueling on 25 February 1966. We had taken off one hour prior to the U-2's departure, and climbed to 35,000 feet in the refueling area to check the weather. The air was smooth with no turbulence and there was none during the refueling period. 25X1A

2. The U-2 was airborne at 0930L and the first dry hook-up with the tanker was made at 0950L. All of the succeeding hook-ups were dry. [redacted] would hold his position on the tanker for two or three minutes and then back off and come in for another hook-up. All of the hook-ups were accomplished with no problems encountered. In fact, on about three hook-ups the boomer held the boom steady and [redacted] flew into the boom for his own hook-up. 25X1A 25X1A

3. I would guess [redacted] made 8 or 10 hook-ups from 0950L to 1020L. He called for a breakaway on the last one and pulled back and off to the right of the tanker. This was not a rapid maneuver in any sense of the word as we had pulled away from the tanker and were about a mile and a half to the side and 3,000 feet below it. Also there was some conversation between us, the tanker, and [redacted] about the hook-up. 25X1A 25X1A

4. As I looked up at the other two aircraft the U-2 was above and to the right side of the tanker. I thought at first I saw three contrails above the U-2, then I thought the tanker was shooting flares, and then I realized the U-2 had disintegrated. There had been no indication of the U-2 having any problems prior to this. It appeared from my position that the U-2 had exploded. At the same time the tanker crew called that a wing had come off of the U-2. We called [redacted] at the same time and informed them of the accident. 25X1A

5. We started to circle the area and made about two orbits when we spotted the parachute below us. Directly below the chute was a wing falling somewhat like a leaf. We of course kept watching the chute and lost track of the wing. There was an overcast with the tops at 8,000 feet. [redacted] deployed his survival equipment about 2,000 feet above the clouds in preparation for his landing. During his descent he was swinging back and forth quite a bit. He disappeared in the clouds so we swung to the east about a mile where it was clear and came in under the clouds. We spotted [redacted] sitting on the ground and he appeared to be in good shape. The tanker had descended to the tops of the clouds and set up an orbit over the pilot. They were able to talk to each other on the emergency frequency of the UHF radio. Our fuel was getting low so we returned to Edwards and landed. 25X1A 25X1A 25X1A 25X1A

25X1A [redacted]

[redacted]
(Witness)

E-7

TAB

Approved For Release 2002/06/18 : CIA-RDP74B00447R000100010064-1

USAF ACCIDENT/INCIDENT REPORT

(Fill in all spaces applicable. If additional space is needed, use additional sheet(s).)

1. DATE OF OCCURRENCE (Year, month and day)	2. VEHICLE(S)/MATERIEL INVOLVED (TMS & Serial Nr., if applicable)	3. FOR GROUND ACCIDENTS ONLY (Base Code and Report Serial Nr.)
1966, March 25	U-2F N800X (342)	N/A

4. PLACE OF OCCURRENCE: STATE, COUNTY; DISTANCE AND DIRECTION FROM NEAREST TOWN. IF ON BASE, IDENTIFY. IF OFF BASE GIVE DISTANCE FROM NEAREST BASE.	5. HOUR AND TIME ZONE LOCAL	6.
California, Kern, 35 NM EAST OF BAKERSFIELD 37NM North West Edwards AFB	1020 PST	[X] DAY [ ] NIGHT [ ] DAWN [ ] DUSK

7. ORGANIZATION POSSESSING OWNING VEHICLE OR MATERIEL AT TIME OF MISHAP

Major Command	Subcommand or AF	Air Division	Wing	Group	Squadron or Unit	Name and Base Code
N/A	N/A	N/A	N/A	N/A	WRSP-IW	North Edwards AFB

8. *(List organizations of second vehicle, if they differ from Item 7 above)*

9. BASE AND COMMAND SUBMITTING REPORT *(Do not Abbreviate)*

North Edwards AFB, California

10. **LIST OF PERSONNEL DIRECTLY INVOLVED**

25X1A

(For aircraft include operator and all other persons whether in plane or not. If more space is required to list all personnel, use additional sheet(s).)

Last Name	First Name	M.I.	Grade	Service No.	Assigned Duty	Aero Rating	Injury to Individual
[redacted]			CIV	N/A	P	Pilot	Minor bruising

11. NARRATIVE DESCRIPTION OF ACCIDENT: Give a detailed history of flight, or chronological order of facts and circumstances leading to the mishap as applicable, the results of investigation and analysis to include discussion of all cause factors listed, findings, and recommendations, and any corrective action taken. *(Continue on reverse, if more space needed.)*

See Attachment

25X1A

12. **AUTHENTICATION**

CERTIFICATION BY (Title)	TYPED NAME AND GRADE	SIGNATURE	DATE
Accident Investigation Officer.	[redacted]	[redacted]	18 MAR. 66.

AF FORM DEC 62 711 PREVIOUS EDITION OF THIS FORM IS OBSOLETE.

★ U.S. GOVERNMENT PRINTING OFFICE : 1962 OF—669566

AIRCRAFT ACCIDENT/INCIDENT REPORT

To be filled out for principal aircraft involved. *(Appropriate blocks only should be filled out on secondary aircraft.)*

1. ACCIDENT/INCIDENT CLASSIFICATION *(Check one)*

	Major	Minor		
Flight Accident Resulting in Aircraft Damage	X		Accident Not Resulting in Aircraft Damage	
Aircraft Non-flight Accident			Air Force Aircraft Incident	

2. Aircraft/Serial Number	3. Type, Model, Series, Block No.	4. Assignment/Status Code (AFM 65-110)
N800X	U2F	N/A

5. If aircraft was being ferried or delivered indicate gaining and losing organizations, date of transfer, ultimate destination.

N/A

6. CLEARANCE:
From Edwards AFB (Local) To To

7. Filed:
VFR X VFR—ON TOP: IFR Local X Other Direct Airways (Controlled)

8. Flight reference at time of accident
Contact X Instrument: Actual Sim. Other Unk.

9. Duration of Flight: Hrs. 0 Mins. 50

10. Mission of flight: In flight refueling dry hookup

11. ALTITUDE DATA	Cleared Alt. MSL	Altitude above terrain acdt sequence began	Altitude MSL impact point	Highest altitude MSL flown	Time flown highest alt.
	35,000 Ft.	29,000 Ft.	5,000 Ft.	36,000 Ft.	Hrs. 0 Min. 01

12. Fire and explosion data
a. Fire: None X Inflight Ground
Result of grd. impact? Yes No
b. Explosion: None X Inflight Ground
Result of grd. impact? Yes No

13. Airfield data: Applicable to takeoff and landing accidents occurring within 2 miles of airfield
Field elevation in use Ft. Composition of rnwy. Asphalt Concrete
Length of runway in use Ft. Other *(Specify)*
Length of overrun Ft. Composition of overrun *(Specify)*
Distance of touchdown from runway Ft. Surface condition. Dry Wet Icy
Heading of runway ° Other *(Specify)*
Conditions affecting occurrence; e.g., type of instrument or lighting approach aid used, abstructions, barrier, airspeed, gross weight, forced landing

14. *(If answer is "Yes," to either question, discuss under item 11, AF Form 711)*
Violations Yes X No Breaches of air discipline Yes X No

15. PHASE OF OPERATION: e.g. take off roll, initial climb, normal flight, acrobatics, landing approach, flareout: Normal flight

16. TYPE OF ACCIDENT: e.g. gear-up landing, mid-air collision, abandoned aircraft, fire or explosion in flight, undershoot, overshoot: Structural Failure

17. WEATHER AT TIME AND PLACE OF ACCIDENT: *(If a factor in the accident, attach statement of weather officer)*

Sky conditions	Visibility	Wind direction and velocity	Temperature	Dew point	Alt. setting	Other weather conditions
Clear	Unlimited	265° 60 Knots	-57°C	-65°C	29.92	None

25X1A

PILOT(S) INVOLVED (FLIGHT CREW)

18. OPERATOR *(Person at controls at time of accident)*

a. LAST NAME *(Jr., II, etc.)* FIRST NAME MIDDLE NAME	GRADE	COMPONENT	SERVICE NUMBER	NATIONALITY	YR. OF BIRTH
	CIV	-	-	USA	1929

b. POSITION IN AIRCRAFT AT TIME OF ACCIDENT: Front or Left Seat X Rear or Right Seat
c. ASSIGNED DUTY ON FLIGHT ORDER: AC IP P X CP Other *(Specify)*

d. ASSIGNED ORGANIZATION

Major Command	Subcommand or AF	Air Division	Wing	Group	Squadron or Unit	Base
N/A	N/A	N/A	N/A	N/A	WRSP-IV	Edwards AFB, Calif

e. ATTACHED ORGANIZATION FOR FLYING

Major Command	Subcommand or AF	Air Division	Wing	Group	Squadron or Unit	Base
N/A	N/A	N/A	N/A	N/A	N/A	N/A

f. ORIGINAL AERONAUTICAL RATING AND DATE RECEIVED	g. PRESENT AERONAUTICAL RATING AND DATE RECEIVED	h. INSTRUMENT CARD	i. AFSC
Pilot 13 Sep 1952	FAA Commercial Pilot	Type FAA; Date of expiration Indef	Primary N/A; Duty

19. OTHER PILOT

a. LAST NAME *(Jr., II, etc.)* FIRST NAME MIDDLE NAME	GRADE	COMPONENT	SERVICE NUMBER	NATIONALITY	YR. OF BIRTH

b. POSITION IN AIRCRAFT AT TIME OF ACCIDENT: Front or Left Seat Rear or Right Seat Other
c. ASSIGNED DUTY ON FLIGHT ORDER: AC IP P CP Other *(Specify)*

d. ASSIGNED ORGANIZATION

Major Command	Subcommand or AF	Air Division	Wing	Group	Squadron or Unit	Base

e. ATTACHED ORGANIZATION FOR FLYING

Major Command	Subcommand or AF	Air Division	Wing	Group	Squadron or Unit	Base

f. ORIGINAL AERONAUTICAL RATING	g. PRESENT AERONAUTICAL RATING	h. INSTRUMENT CARD	i. AFSC
		Type; Date of expiration	Primary; Duty

NOTE: IF MORE THAN TWO PILOTS ARE INVOLVED (FLIGHT CREW) REPORT SAME INFORMATION REQUIRED ON ADDITIONAL SHEET FOR EACH.

AF FORM DEC 62 711b PREVIOUS EDITION OF THIS FORM IS OBSOLETE.

25X1A

20. FLYING EXPERIENCE *(Attach copy of AF Form 5 for Pilot(s) involved as outlined in AFR 127-4.)*					
ASSIGNED DUTY ON FLIGHT ORDERS: *(Give last names only. List all flight times to nearest hour.)*	Pilot	Co-Pilot	Inst. Pilot	Acft. Cmdr.	Student Pilot
a. Total flying hours *(Including AF time, student and other accredited time):*	4270				
b. Total Jet Time:	3761				
c. Total 1st Pilot/IP hours, all Aircraft:	3761				
d Total Weather Instrument Hours:	289				
e. Total 1st Pilot/IP hours this Model:	1373				
f. Total 1st Pilot/IP hours last 90 Days:	57				
g. Total 1st Pilot/IP hours last 90 Days this Model:	28				
h. Total 1st Pilot/IP hours weather and hood last 90 Days:	10				
i. Total Pilot hours night last 90 Days:	34				
j. Total Pilot hours last 30 Days:	14				
k. Total 1st Pilot/IP hours last 30 Days:	18				
l. Total 1st Pilot/IP hours last 30 Days this Model:	12				
m. Date and Duration last previous flight this Model:	21 Feb 66 — 5				
n. Date of last proficiency flight check:	2 Dec 65				

21. CAUSATIVE AGENCY

Cause Factors *(Check one primary and all applicable contributing and probable factors.)*

	Primary	Contributing	Probable
Operators			
Pilot	X		
Co-Pilot			
Controller (Drones)			
Crewmembers *(Other than Operator)*			
(Specify)			
Supervisory Personnel			
(Specify)			
Maintenance Personnel			
Type of pers. and orgn. level			
Other Personnel			
(Specify)			
Materiel Failure or Malfunction			
Engines			
Airframe		X	
Landing Gear			
Other *(Specify)*			
Airbase or Airways			
Weather			
Misc. Unsafe Conditions			
(Specify)			
Undetermined	☐		

22. DAMAGE

Damage to Aircraft	Damage Beyond Economical Repair	Manhours to Repair	Cost *(Est.)*
☒ Destroyed ☐ Minor ☐ Substantial ☐ None	☒ Yes ☐ No	N/A	$ N/A

Description of Damage *(Describe briefly extent of damage to aircraft and any property damage incurred)*

Aircraft was damaged beyond repair. Aircraft disintegrated in air. Aircraft fell in uninhabited area in mountainous terrain. Slight property damage incurred while recovering aircraft parts, no claims expected.

25X1A

23. AUTHENTICATION *(Signature and grade)*

President	Accident Investi
Maintenance Officer	Medical Officer
AACS Representative	AWS Representative
Member	Recorder

PILOT INDIVIDUAL FLIGHT RECORD

1. AF OR COMMAND	2. WING, GROUP, AND SQUADRON OR UNIT	3. PERIOD COVERED	4. SHEET NO.	5. NAME (Last - first - middle)	6. SERVICE NUMBER
		JAN - FEB 1966	90		25X1A
7. BASE AND LOCATION		8. BIRTH (Day, month, year)	9. DUTY AFSC	INSTRUMENT CERTIFICATE: WHITE / GREEN / NONE	14. GRADE AND COMPONENT
10. ORIGINAL RATING AND DATE	11. PRESENT RATING AND DATE	12. DATE PHYSIOLOGICAL TRAINING CERTIFICATE EXPIRES		DATE OF EXPIRATION	

SECTION 1

DATE	TYPE MODEL SERIES	MISSION SYMBOL	LANDINGS	INSTRUCTOR PILOT TIME	FIRST PILOT TIME	CLASSIFICATION OF INSTRUCTOR AND FIRST PILOT					COMMAND PILOT TIME	CO-PILOT TIME	CLASSIFICATION OF COMMAND AND/OR CO-PILOT			
						DAY		NIGHT		HOOD			DAY		NIGHT	
						VFR	WEATHER	VFR	WEATHER				VFR	WEATHER	VFR	WEATHER
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
JAN																
3	T33A	S8	2	1:45	1:45	2:30				1:00						
5	U2G	S8	1		4:30	4:30										
11	T33A	S8	6	1:45	1:45	2:00				1:30						
17	U2F	S8	1		4:25	4:03	0:20									
25	U2G	S8	2		1:50	1:50										
FEB																
3	U2G	S8	1		6:10	5:50	0:20									
21	U2G	0	1		5:10			5:10								
24	T33A	S8	1	1:40		1:40										
24	T33A	S8	2	1:35	1:45	2:00	ACFT			1:20						
25	U2F	0			0:50	0:50	DESTROYED-NON FATAL									
				LAST ENTRY												
18. TOTALS THIS SHEET			17	6:45	28:10	25:15	0:40	5:10		3:50						
16. TOTALS BROUGHT FORWARD FROM SHEET NO. 89			1889	609:45	3115:50	2774:45	225:05	380:20	28:05	317:20		242:25	164:55	29:40	42:15	5:35
17. TOTALS TO DATE			1906	616:30	3144:00	2800:00	225:45	385:30	28:05	321:10		242:25	164:55	29:40	42:15	5:35

17. TYPED NAME AND GRADE OF OPERATIONS OFFICER OR AUTHORIZED DEPUTY

19. SIGNATURE (Sign original and duplicate)

SHEET I

PILOT INDIVIDUAL FLIGHT RECORD

SECTION II - MISCELLANEOUS FLYING RECORD

DATE	TYPE MODEL SERIES	AUTH. MISSION SYMBOL	RADIO CONTROL PILOT TIME	AIRCRAFT COMMANDER TIME	CLASSIFICATION OF AIRCRAFT COMMANDER TIME				APPROACHES				INSTRU-MENT TRAINERS	FLIGHT SIMU-LATOR				
					DAY VFR	DAY WEATHER	NIGHT VFR	NIGHT WEATHER	DATE	TYPE	RADAR	NON-RADAR			H P	WX Q	SFO R	FCL
A	B	C	D	E	F	G	H	I	J	K	A	B	N	O				
									JAN									
									3	T33A	1	1			1		1	
									11	T33A	2	1			1			
									17	U2F						1		
									25	U2G		2						
									FEB									
									3	U2G						1		
									21	U2G	1							
									24	T33A	3	2			1			
20. TOTALS THIS SHEET											7	6			3	2	1	
21. TOTALS BROUGHT FORWARD FROM SHEET NO. 89											393	275	115:00		56	78	63	242
22. TOTALS TO DATE											400	281	115:00		59	80	64	242

SECTION III - SUMMARY OF PILOT EXPERIENCE

DUTY	SINGLE ENGINE	TWO ENGINES	MORE THAN TWO ENGINES	SINGLE JET PROPULSION	MULTI-JET PROPULSION	JET ROCKET	ROCKET	ROTARY WING TYPE	GLIDER	TURBO-PROP: TWO ENGINES	TURBO-PROP: MORE THAN TWO ENGINES		TOTAL
A	B	C	D	E	F	G	H	I	J	K	L	M	N
23. INSTRUCTOR PILOT				616:30									616:30
24. FIRST PILOT	0:25	90:40	10:50	2573:40	466:15			2:10					3144:00
25. COMMAND PILOT													~~242:25~~
26. CO-PILOT		99:25	38:05	59:30	45:25								
27. AIRCRAFT COMMANDER													
28. RADIO CONTROL PILOT													
29. TOTAL USAF RATED TIME	0:25	190:05	48:55	3249:40	511:40			2:10					4002:55

PILOT COMBAT TIME	35. INSTRUCTOR	36. FIRST	37. COMMAND	38. CO-PILOT	39. RADIO CONTROL	40. A/C COMDR	41. TOTAL COMBAT TIME
		104:20					104:20

30. AF STUDENT PILOT TIME	265:00
31. CIVILIAN - OVER 450 HP.	
32. FOREIGN MILITARY	2:20
33. OTHER U. S. MILITARY	
34. TOTAL FLYING TIME	4270:15

REMARKS *(Use reverse if more space needed)*

28 Feb 66: Aircraft Accident: Bailout successful

PART II

AF FORM 5 - PART II

TAB

AIRCRAFT MAINTENANCE/MATERIEL REPORT

Use this form when AF aircraft accident/incident involves inadequacy, malfunction or failure of AF materiel.

1. AIRCRAFT TM & SERIAL NUMBER	2. SPECIAL REPORTS DATA	
56-6675 U-2F	a. Were Previous UR's Submitted on Factor(s) Involved? ☐ Yes ☒ No	b. No. and Date of UR's Submitted as Result of This Accident (Attach copy) None
	c. Is TDR Requested? ☐ Yes ☒ No	d. No. of T.O.'s Not Complied With at Time of Accident (List T.O. Nos. and titles on separate sheet(s)—Tab K) See attachment

3. AIRCRAFT HISTORICAL DATA

Item	Aircraft	Part, Component or Accessory
Identification of Aircraft/Port, etc.	56-6675 (U-2F)	
Air Force Acceptance Date	18 AUG 56	
Total Flight Hours	2961.6	
Last Overhaul Date	29 AUG 64	
Overhauling Activity (Name and location)	L.C.C. VAN NUYS, CAL.	
Hours Since Overhaul	561.3	
Hours Since Last Periodic Inspection	106.1	
Date of Last Periodic Inspection	20 NOV 65	
Type of Last Periodic Inspection	200 HOURS	

4. ENGINE HISTORICAL DATA

(Complete a separate column for each engine involved. Also, complete a separate column for each power plant component involved.)

Item				
Installed Position	SINGLE ENGINE			
Engine Model and Series	J75-P13			
Engine Serial Number	P-612093			
Total Engine Hours	294.5			
Number of Major Overhauls	0			
Hours Since Last Major Overhaul	0 (NEW)			
Date of Last Overhaul	N/A			
Overhaul Activity	N/A			
Date Last Installed	26 FEBR 65			
Hours Since Last Installed	291.8			
Date of Last Periodic Inspection	N/A (WAS DUE AT	500 ENG HRS)		
Type of Last Periodic Inspection	N/A			
Fuel (Type and octane rating)	MIL-F-25524-B			

5. FIRE DATA

(To be completed when fire or chemical explosion occurs, not resulting from ground impact. Indicate: P—Probable or K—Known, in squares below.)

a. MATERIEL FAILURE CAUSING THE FIRE				b. IGNITION SOURCE				c. COMBUSTIBLE MATERIAL			
Electrical System		Propulsion System		Electrical System		Static Electricity/ Lightning		Cargo		Hydraulic Fluid	
Fuel System		Other (Specify)		Pneumatic System		Other (Specify)		Electrical Insulation		Lubricating Oil	
Hydraulic System				Propulsion System				Explosives		Other (Specify)	
Pneumatic System		Unknown				Unknown		Fuel		Unknown	

d. AIRCRAFT FIRE EXTINGUISHING SYSTEM				e. FIRE/OVERHEAT WARNING				
	Fixed	Portable		Fixed	Portable		Fire Detector	Overheat Indicator
Extinguished Fire			Not Activated and Not Near Fire			Operated Properly		
Reduced Fire			If Discharged, Chemical Used			Not Operated, but Near Fire		
No Effect When Discharged			If Discharged, Amount of Chemical Used			Not Operated and Not Near Fire		
Activated but Did Not Discharge			Other Pertinent Info.			Not Installed		
Not Activated but Near Fire						Other (Specify)		

f.	SHUT OFF PROCEDURE	RESULTS OF ALLOWING FIRE TO BURN OUT	g. EFFECT OF FIRE	MARK ONE
Extinguished Fire			Catastrophic	
Reduced Fire			Increased Severity of Mishap	
No Effect			No Change in Severity of Mishap	
Not Accomplished			Unknown	
Unknown				

6. LOCATION OF INITIAL FIRE

	Known	Probable		Known	Probable		Known	Probable
Baggage Comportment			Aft of Firewall			Wheel Well		
Bomb Bay			Forword of Firewall			Cargo-Possenger Compartment		
Cockpit/Crew Quarters			Rocket Pod			Other *(Specify)*		
Engine Section			Tire/Wheel/Brake			Unknown ☐		

7. MISCELLANEOUS CHEMICAL EXPLOSION DATA

	Known	Probable		Known	Probable
Initial Ignition Occurred in on Explosive Monner Prior to Ground Impact.			Intensity of Explosion Wos Sufficient To Cause or Appreciably Contribute to In-Flight Airfrome Break-Up.		
Explosion Occurred After Fire and Before Ground Impact.			Other Significont Dota *(Specify)*		
Explosion Occurred Subsequent to Ground Impact.			Unknown or Not Available.		

8. AIRCRAFT MAINTENANCE OFFICER'S ANALYSIS AND SPECIFIC ACTION TAKEN

Describe difficulties involved and relationship of the vorious components to the accident. Describe specific action token. For Fire Data describe the fire and/or chemicol explosion. Cover in detail ony noted deficiencies, malfunctions of fire detecting and extinguishing equipment, or questionable procedures. When discussing specific equipment, give the nome of monufocturer, part numbers, etc., and stote whether or not o UR hos been submitted. Include any odditionol informotion or opinion of possible volue to future technicol onolysis of this report.

☆ U.S. GOVERNMENT PRINTING OFFICE : 1963 OF—669569

25X1A

DATE	LOCATION	ACFT T/M/S	AIRCRAFT SERIAL NO.
25 FEB 66	[redacted]	U-2F	342

LAST NAME, FIRST NAME, INITIAL
GRADE-SERVICE NUMBER
(ORGANIZATION AND STATION, IF TRANSIENT)
(PRINT PLAINLY)

25X1A

A	B	C	D	E	F	G	H	I
	USE AS DIRECTED LOCALLY	ENTER DUTY SYMBOL IN UPPER LEFT BOX AND FLIGHT CONDITION SYMBOL IN UPPER RIGHT BOX. ENTER TIME FLOWN IN LINE THEREUNDER.				TYPE AND NO. OF PENETRATIONS, APPROACHES, AND LANDINGS	FLIGHT DATA AND TOTAL NO. OF LANDINGS	TIME
		DUTY / COND	DUTY / COND	DUTY / COND	DUTY / COND		TO / FROM / MSN SYM / TOTAL LDGS	LANDING / TAKEOFF / FLIGHT
		P					TO: LOCAL	LANDING:
		0:50	:	:	:		FROM: LOCAL	TAKEOFF: 09:30
		:	:	:	:		MSN SYM / TOTAL LDGS	FLIGHT: 0:50
		:	:	:	:		TO	LANDING:
		:	:	:	:		FROM	TAKEOFF:
		:	:	:	:		MSN SYM / TOTAL LDGS	FLIGHT:
		:	:	:	:		TO	LANDING:
		:	:	:	:		FROM	TAKEOFF:
		:	:	:	:		MSN SYM / TOTAL LDGS	FLIGHT:
		:	:	:	:		TO	LANDING:
		:	:	:	:		FROM	TAKEOFF:
		:	:	:	:		MSN SYM / TOTAL LDGS	FLIGHT:
		:	:	:	:		SUB TOTALS FORWARDED	0:50

AFTO FORM MAR 62 781 PART-I

25X1A

DATE	LOCATION	ACFT T/M/S	AIRCRAFT SERIAL NO.
25 FEB 66	FMFB	U-2F	342

A — STATUS OF SCHEDULED MAINTENANCE INSPECTIONS (PR, HPO, AND PE) AND BASIC ENTRIES FOR OPEN RED (X) AND RED (DASH) ITEMS ENCLUDING FCF,S WHEN REQUIRED

TYPE	SYM	SYSTEM	ACCOMPLISHED BY	DATE COMPLETED	NEXT DUE
25X1A	—	63		25 FEB 66	

B — CERTIFICATION FOR ACCOMPLISHMENT OF BASIC POSTFLIGHT OR THRUFLIGHT INSPECTIONS

FLT NO.	ACCOMPLISHED
1	
2	
3	
4	
5	
6	

C — AIRCRAFT TIME

PREVIOUS	[illegible]
TODAY	
TOTAL	
PREVIOUS LANDINGS	
TODAY	
TOTAL	

SEE BLOCK "A" AND AFTO FORMS 781A AND 781B FOR EXPLANATION OF THE STATUS SYMBOL

D

STATUS TODAY		BOX NO.	EXCEPTIONAL RELEASE (ENTER BOX NUMBER)
1 /	7	1	
2	8		25X1A
3	9		
4	10		
5	11		
6	12		

E

FLT NO.	COND ACFT FLT: OK	COND ACFT FLT: NO. OF DISC	PILOT'S SIGNATURE (ENTER AFTER EACH FLIGHT)	OVER TEMP ENGTRD	AUX ENGINE OR APU OPERATION
1					B-TIME
2				[illegible] V	09:30
3				TOTAL	
4				TOTAL	
5					
6					

F — GUN OR ROCKET STATUS (INDICATE WHETHER HOT OR COLD) AND QUANTITY ON BOARD

STATUS							
QUANTITY							

G — ATO BOTTLES INSTALLED ☐ YES ☐ NO — QUANTITY — TOTAL TODAY

AFTO FORM MAR 62 781 PART-II AIRCRAFT FLIGHT REPORT AND MAINTENANCE RECORD

PREVIOUS EDITIONS OF THIS FORM MAY BE USED.

LAST NAME–FIRST NAME–INITIAL GRADE–SERVICE NUMBER (ORGANIZATION AND STATION, IF TRANSIENT) *(PRINT PLAINLY)*	USE AS DIRECTED LOCALLY	ENTER DUTY SYMBOL IN UPPER LEFT BOX AND FLIGHT CONDITION SYMBOL IN UPPER RIGHT BOX. ENTER TIME FLOWN IN LINE THEREUNDER.				TYPE AND NO. OF PENETRATIONS, APPROACHES, AND LANDINGS	BROUGHT FORWARD LDGS	TIME 0:50
		DUTY | COND	DUTY | COND	DUTY | COND	DUTY | COND			
A	B	C	D	E	F	G	H	I
		:	:	:	:		TO	LANDING :
		:	:	:	:		FROM	TAKEOFF :
		:	:	:	:		MSN SYM | TOTAL LDGS	FLIGHT :
		:	:	:	:		TO	LANDING :
		:	:	:	:		FROM	TAKEOFF :
		:	:	:	:		MSN SYM | TOTAL LDGS	FLIGHT :
		:	:	:	:		TO	LANDING :
		:	:	:	:		FROM	TAKEOFF :
		:	:	:	:		MSN SYM | TOTAL LDGS	FLIGHT :
		:	:	:	:		TO	LANDING :
		:	:	:	:		FROM	TAKEOFF :
		:	:	:	:		MSN SYM | TOTAL LDGS	FLIGHT :

OPERATIONS: CHECKED LEGIBLE AND CORRECT *(SIGNATURE)*

MAINTENANCE ACTIVITY: TOTAL FLIGHT TIME CHECKED AND TRANSCRIBED TO AFTO FORM 781–PART II AND AFTO FORM 781B. (SIGNATURE) [redacted]

TOTALS: LDGS | TIME 0:50

25X1A

H

SER NO.	FUEL (GALLONS OR POUNDS) OCTANE OR GRADE	QUANTITY SERVICED	TOTAL IN TANKS	OIL (PINTS, QUARTS, OR GALLONS) 1 SER	1 IN	2 SER	2 IN	3 SER	3 IN	4 SER	4 IN	5 SER	5 IN	6 SER	6 IN	7 SER	7 IN	8 SER	8 IN	OXY PRESS OR QTY	A.D.I.	WATER
1	JPTS	624	620	0	[illegible]															1800		
2																						
3																						
4																						
5																						
6																						
TOTAL																						

SERVICING CERTIFICATION: (SIGNATURE, GRADE AND STATION AT WHICH SERVICING IS ACCOMPLISHED)

1	BY [redacted]		BY	5	BY		
	AT FMEB		AT		AT		
2	BY 25X1A	4	BY	6	BY		
	AT		AT		AT		

I

J ACCESSORIES CHANGED

REMOVED	INSTL	ACCESSORIES AND POSITION	SERIAL NO.	ACFT TIME OR PREV OPER TIME	CHANGED BY

M&W, INC. 2-62 7,500,800

25X1A

DATE FROM / TO		LOCATION	TMS	SERIAL NO.
14-FEB-66		EAFB	U-2F	5[illegible]

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
C	14-FEB-66	PREFLIGHT DUE		PREFLIGHT C/A
				DATE CORRECTED: 15-FEB-66
				CORRECTED BY: INSPECTED BY:

25X1A

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
C	15-FEB-66	TRIM GOES TO MAX. NOSE UP AFTER 5 MIN ON. AUTO PILOT - MODERATE A/C BUFFETING RESULTS FROM AUTOPILOT UNABLE TO HOLD A/C STEADY.		ADDED BALLAST AT STA 673 TO BRING C.G. TO MAX AFT LIMITS.
				DATE CORRECTED: 16-FEB-66
				CORRECTED BY: INSPECTED BY:

25X1A

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
/	15 FEB 66	HR 77481 TIME DELAY RELAY (SYST 134) NOT INST., REF B/P R838 & S18974		TRANSCRIBED TO 781 B
				DATE CORRECTED: 16 FEB 66
				INSPECTED BY: [illegible]

25X1A

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
C	15-FEB-66	PREFLIGHT DUE		PREFLIGHT C/W
				DATE CORRECTED
			CORRECTED BY	INSPECTED BY

25X1A

AFTO FORM 781A DEC 61 — PREVIOUS EDITIONS OF THIS FORM MAY BE USED.

MAINTENANCE DISCREPANCY/WORK RECORD

AF CAG (4-23-62) 7MM

DATE FROM / TO	ORGN	LOCATION	TMS	SERIAL NO.
16-FEB-66		EAFB	V-2F	372

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
	16 FEB 66	C/F FROM 781A dtd (2 FEB 66) A.R.S. FUNCTIONAL CHECK DUE		

DATE CORRECTED:
CORRECTED BY: 25X1A
INSPECTED BY:

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
C	16 FEB 66	C/F FROM 781A DATED (3 FEB 66) TRIM WENT TO MAX UP. FORCE AFTER LEVEL OFF		ADDED BALLAST AT STA 673 TO BRING C.G. TO MAX AFT LIMITS.

DATE CORRECTED: 16-FEB-66
INSPECTED BY: 25X1A

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
C	16 FEB 66	FOR THE FIRST 2 HRS & 90 MIN WITH 12° NOSE UP TRIM AIRCRAFT HAS A STICK VIBRATION WHICH SEEMS TO BE IN VERT AXIS. UPON REDUCING POWER TO MAINTAIN 120 CRUISE, NOSE UP TRIM DROPPED TO 6-8° & VIBRATION CEASED.		ADJUSTED TAIL PIPE

DATE CORRECTED: 18-FEB-66
DISCOVERED BY: 25X1A
CORRECTED BY:
INSPECTED BY:

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
C	16-FEB-66	PREFLIGHT DUE		PREFLIGHT C/N

DATE CORRECTED: 17-FEB-66
DISCOVERED BY: 25X1A
INSPECTED BY: 25X1A

AFTO FORM 781A DEC 61 — PREVIOUS EDITIONS OF THIS FORM MAY BE USED.

MAINTENANCE DISCREPANCY/WORK RECORD

AF CdO (4-23-62) 7MM

DATE FROM TO	CREW CHIEF	ORGN	LOCATION	TMS	SERIAL NO.
14 Feb 66	25X1A		EAFB	U2F	342

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
C	17 Feb. 66	HYDRO. PRESS. FLUCTUATES INTERMITTENTLY 2800-2900 PSI.		BLED HYDRO TRANS. GROUND CHECKED O.K.
				DATE CORRECTED 18-FEB-66
	DISCOVERED BY 25X1A		CORRECTED BY	INSPECTED BY

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
X	17 FEB. 66	AT 20,000', ENGINE IS UNSTABLE BETWEEN 88.2 TO 90.2 %RPM. (UNABLE TO HOLD ANY RPM. IN THIS RANGE.)		REMOVED & REPLACED FUEL CONTROL WITH LIKE SERVICEABLE PART SERIAL NO 20965 TSO. 26.2 SERIAL NO 14824 TSO. 00:00 Ground Run OK
				DATE CORRECTED 18-FEB-66 25X1A
	25X1A			INSPECTED BY

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
B	17 Feb. 66	DRIFT SIGHT GONE TOO LOOSE.		Replaced like item
				DATE CORRECTED Feb 17, 66
	25X1A	25X1A		INSPECTED BY 25X1A

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
B	17 Feb. 66	SEXTANT BUBBLE IS TOO LARGE		Adjusted the thermostat screw on the sextant remained in A/C. (Electronic heater control will be installed at later date.)
				DATE CORRECTED 18 FEB. 66
		25X1A		D BY 25X1A

AFTO FORM 781A DEC 61 PREVIOUS EDITIONS OF THIS FORM MAY BE USED.

MAINTENANCE DISCREPANCY/WORK RECORD

AF C&G (4-23-62) 7MM

25X1A

DATE FROM	TO	LOCATION	TMS	SERIAL NO.
14-FEB-66		EAFB	U-2F	347

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
A	17-FEB-66	PREFLIGHT DUE		PREFLITE'd

DATE CORRECTED: 21-2-66

INSPECTED BY:

25X1A

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
	18 FEB 66	FCF REQUIRED DUE TO FUEL CONTROL CHANGE		FUEL CONTROL SER# 14824 UNSATISFACTORY IN FLIGHT FCF CARRIED FORWARD TO 781A (dated 22 FEB 66)

DATE CORRECTED: 22 Feb 66

INSPECTED BY:

25X1A

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
X	21 Feb 66	WHILE ACCELERATING ABOVE +10K IN ORDER TO OBTAIN 640°C EGT WHEN USING EMERGENCY FUEL CONTROL, ENGINE ACHIEVED 535°C AND THEN DECELLERATED EVEN AT FULL THROTTLE.		REMOVED AND REPLACED FUEL CONTROL P/N [redacted]-250 WITH LIKE SERVISEABLE PART. SER. #OUT 14824 - TSO. 1.8 SER # IN 23014 TSO. 00:00 GROUND RUN OK

DATE CORRECTED: 22 FEB 66

25X1A

DISCOVERED BY:

25X1A

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
		THEREAFTER MAX EGT WAS 480° AT +13K WITH OAT -45°C.		

DATE CORRECTED:

CORRECTED BY:

INSPECTED BY:

25X1A

AFTO FORM 781A DEC 61 — PREVIOUS EDITIONS OF THIS FORM MAY BE USED.

MAINTENANCE DISCREPANCY/WORK RECORD

AF C&G (4-23-62) 7MM

25X1A

DATE FROM / TO		LOCATION	TMS	SERIAL NO.
14 FEB 66		EAFB	U-2F	342

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
C	21 FEB 66	FLAP INDICATOR STAYED AT -4° UP WHEN GUST RETURNED TO FAIRED. FLAPS WERE NOT STUCK IN GUST.		CYCLED FLAPS SEVERAL TIMES INTO GUST & OUT CHECKED OUT OK. REQUEST CHECK ON NEXT FLIGHT TO SEE IF IT REOCURES.

DATE CORRECTED: 22-FEB-66

25X1A

INSPECTED BY:

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
C	21-FEB-66	PREFLIGHT DUE		PREFLIGHT C/M

DATE CORRECTED: 23-FEB-66

25X1A

INSPECTED BY:

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
W	23 FEB 66	FCF REQUIRED DUE TO FUEL CONTROL CHANGE		F.C.F. CARRIED OUT.

DATE CORRECTED: 23 FEB 66.

25X1A

25X1A

CORRECTED BY:

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
C	23 FEB 66	- FLAPS STAYED AT -2° WHENEVER GUST CONTROL RETURNED TO FAIRED.		INDICATOR WIRING REMOVED & REPLACED SP0009 INDICATOR S/N IN A30702-149 S/N OUT A29083-8

DATE CORRECTED: 24-FEB-66

25X1A

INSPECTED BY:

AFTO FORM DEC 61 781A — PREVIOUS EDITIONS OF THIS FORM MAY BE USED.

MAINTENANCE DISCREPANCY/WORK RECORD

AF C&G (4-23-62) 7MM

25X1A

DATE FROM / TO		LOCATION	TMS	SERIAL NO.
14 FEB 66		EAFB	11-2F	342

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
C	23 FEB 66	CABIN HEAT		REMOVED & REPLACED
STUCK IN FULL HOT AFTER		SP 104366-1 BY PASS VALVE		
ENGINE RELIGHT REGARDLESS		S/N IN 76P-247		
OF CONTROL SETTING. CAME		S/N OUT 56-193 432 HRS TT		
OUT OF FULL HOT WHEN ENGINE				
POWER WAS REDUCED				DATE CORRECTED 24-FEB-66

25X1A

DIS			INSPECTED BY

25X1A

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
A	23 FEB 66	AUTO PILOT TURN		
KNOB BECOMES VERY STIFF			TURN KNOB SET	
TOWARDS END OF TRAVEL IN			SCREW SHORTENED.	
EITHER DIRECTION				
				DATE CORRECTED 2-24-66

25X1A

DIS			INSPECTED BY

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
	23 FEB 66	SEVERAL ATTEMPTS		
HAD TO BE MADE TO TUNE			618T [illegible]	
IN 618T TRANSMITTER AT			[illegible]	
VARIOUS FREQUENCIES.			[illegible]	
				DATE CORRECTED 23-2-66

25X1A

DIS			INSPECTED BY

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
R	23 FEB 66	MAX FUEL FLOW		
IN EMERGENCY FUEL CONTROL			CHECKED WITH	25X1A
LESS THAN NORMAL. MAX			OF P&W & THIS IS	
EGT 460° AT -10M AND			WITHIN LIMITS PER	
640°C AT +16M. CHECK			OUR TELECON.	
TO SEE IF WITHIN LIMITS				DATE CORRECTED 28 FEB 66

25X1A

DIS			INSPECTED BY

AFTO FORM 781A DEC 61 — PREVIOUS EDITIONS OF THIS FORM MAY BE USED.

MAINTENANCE DISCREPANCY/WORK RECORD

AF C&G (4-23-62) 7MM

DATE FROM TO		LOCATION	TMS	SERIAL NO.
25X1A		EAFB	U-2F	342

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
C	23-FEB-66	PREFLIGHT DUE		PREFLIGHT C/W
				DATE CORRECTED 25-FEB-66
25X1A				INSPECTED BY

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
C	23-FEB-66	ALL FOUR BRAKE LEAK AT PUCKS.		REMOVED & REPLACED 4 SP95-31237 BRAKE ASSEM. S/N'S IN 256-1045, 256-1096, 1255E-1135, AND 1255E-1074
				DATE CORRECTED 24-FEB-66
25X1A				INSPECTED BY

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
C		L H TIRE LEAKS VERY BAD		REMOVED & REPLACED SPL1-23 WHEEL ASSEM.
				DATE CORRECTED
	DISCOVERED BY		CORRECTED BY	INSPECTED BY

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
		25 HR. ITEMS DUE		25 HR ITEMS C/W
				DATE CORRECTED 24-FEB-66
25X1A				INSPECTED BY 25X1A

AFTO FORM 781A DEC 61 PREVIOUS EDITIONS OF THIS FORM MAY BE USED.

MAINTENANCE DISCREPANCY/WORK RECORD

AF CoG (4-23-62) 7MM

25X1A [redacted]

DATE FROM	TO	LOCATION	TMS	SERIAL NO.
		EAFB	U-2F	342

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION
X	24-FEB-66	DOUBLER ON FLAP HINGE LINE AT WING STA 144 IS CRACKED		REMOVED & REPLACED DOUBLER.

DATE CORRECTED: 24-FEB-66

INSPECTED BY:

25X1A [redacted]

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION

DATE CORRECTED:

DISCOVERED BY: | CORRECTED BY: | INSPECTED BY:

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION

DATE CORRECTED:

DISCOVERED BY: | CORRECTED BY: | INSPECTED BY:

SYM	DATE DISCD	DISCREPANCY	REPORT NO.	CORRECTIVE ACTION

DATE CORRECTED:

DISCOVERED BY: | CORRECTED BY: | INSPECTED BY:

AFTO FORM 781A DEC 61 — PREVIOUS EDITIONS OF THIS FORM MAY BE USED.

MAINTENANCE DISCREPANCY/WORK RECORD

AF C&G (4-23-62) 7MM

AF FORM 711c

Service Bulletins not complied with at time of accident:

S/B NO.	TITLE
984	Wing Hole Covers - W.S. 160
1006	Improved Canopy Latch Handle
1022	Nitrogen Bottle Gage - Relocation
1028	Stall Strip Drain Hole and Tube
1045	Addition of [redacted] Monitor of Autopilot Manual Disconnect

25X1A

WEIGHT AND BALANCE CLEARANCE FORM F

TACTICAL

(USE REVERSE FOR TRANSPORT MISSIONS)

FOR USE IN T. O. 1-1B-40 & AN 01-1B-40

25X1A

DATE	AIRCRAFT TYPE	FROM	HOME STATION
25 FEB 66	U-2F	LOCAL	EAFB
MISSION/TRIP/FLIGHT/NO.	SERIAL NO.	TO	PILOT

25X1A

REMARKS

COMPUTER PLATE NO. *(If used)*

REF	ITEM	WEIGHT	[1] INDEX OR MOM/
1	BASIC AIRCRAFT *(From Chart C)*	13412	5702.6
2	OIL (5.5 Gal.)	41	16.8
3	DISTRIBUTION OF LOAD		

COMPT.	CREW NO.	CREW WEIGHT	BAGGAGE	CARGO AND MISC.	WEIGHT	INDEX OR MOM/
			PILOT		285	67.0
			GLOCKENSPIEL		485	135.8
			"B" HATCH W/25LBS BALLAST AT 256		99	25.9
			SYSTEM XIII BALLAST		98	55.1
4	OPERATING WEIGHT				14420	6003.2

Pertinent instructions to the pilot for shifting load and crew during takeoff and landing should be noted above.

CORRECTIONS *(Ref. 11)*

COMPT.	ITEM	CHANGES (+ or −) WEIGHT	[1] INDEX OR MOM/
TOTAL WEIGHT REMOVED		−	−
TOTAL WEIGHT ADDED		+	+
NET DIFFERENCE *(Ref. 11)*			

5	AMMUNITION	COMPT. / ROUNDS / CALIBER	FS 416.31
6	BOMBS, ROCKETS, ETC.	FORWARD	CG 26.4 %
		AFT	
		EXTERNAL	
		ROCKETS	
7	FUEL	BUILT IN (Gal.)	
		BOMB BAY (Gal.)	
		EXTERNAL (Gal.)	
8		WATER INJ. FLUID (Gal.)	
9		JATO OR RATO	
10		TAKEOFF CONDITION *(Uncorrected)*	
11		CORRECTIONS *(If required)*	
12		TAKEOFF CONDITION *(Corrected)*	
13		TAKEOFF C. G. IN % M. A. C. OR IN.	
14	LESS EXPENDABLES	JATO OR RATO	
		BOMBS	
		AMMUNITION	
		FUEL	
15		ESTIMATED LANDING CONDITION	
16		ESTIMATED LANDING C. G. IN % M. A. C. OR IN.	

LIMITATIONS

[2] GROSS WT. TAKEOFF *(lb.)*	[2] GROSS WT. LANDING *(lb.)*

	FROM	TO (% M. A. C. OR IN.)
[3] PERMISSIBLE C. G. TAKEOFF ZFW	25.5	
[4] PERMISSIBLE C. G. LANDING		26.5

[1] *Enter constant used.*
[2] *Enter values from current applicable T. O.*
[3] *Applicable to gross weight (Ref. 12).*
[4] *Applicable to gross weight (Ref. 15).*

COMPUTED BY *(Signature)*

WEIGHT AND BALANCE AUTHORITY *(Signature)*

PILOT *(Signature)*

25X1A

DD FORM 1 SEPT 54 365F

WEIGHT AND BALANCE CLEARANCE FORM F
TRANSPORT

(USE REVERSE FOR TACTICAL MISSIONS)

USAF Form 365
RAF Form 2870
RCAF Form F. 115 C
50M 5-51 (6797)

FOR USE IN T. O. 1-1B-40 & AN 01-1B-40

DATE	AIRCRAFT TYPE	FROM	HOME STATION
MISSION/TRIP/FLIGHT/NO.	**SERIAL NO.**	**TO**	**PILOT**

LIMITATIONS

CONDITION	TAKEOFF	LANDING	LIMITING WING FUEL
[2] ALLOWABLE GROSS WEIGHT			
TOTAL AIRCRAFT WEIGHT (*Ref. 11*)			
OPERATING WEIGHT PLUS ESTIMATED LANDING FUEL WEIGHT			
OPERATING WEIGHT (*Ref. 8*)			
ALLOWABLE LOAD (*Ref. 12*) (*use SMALLEST figure*)			

[3] PERMISSIBLE C. G. TAKEOFF	FROM	TO (% *M.A.C. or IN.*)
[4] PERMISSIBLE C. G. LANDING	FROM	TO (% *M.A.C. or IN.*)
[5] LANDING FUEL WEIGHT		

REMARKS

TOTAL FREIGHT	
TOTAL MAIL	
COMPUTER PLATE NUMBER (*If used*)	

[1] *Enter constant used.*
[2] *Enter values from current applicable T. O.*
[3] *Applicable to gross weight (Ref. 15).*
[4] *Applicable to gross weight (Ref. 18).*
[5] *Ref. 9 minus Ref. 17.*

REF	ITEM	WEIGHT	[1] INDEX OR MOM/
1	BASIC AIRCRAFT (*From Chart C*)		
2	OIL (*Gal.*)		
3	CREW (*No.*)		
4	CREW'S BAGGAGE		
5	STEWARD'S EQUIPMENT		
6	EMERGENCY EQUIPMENT		
7	EXTRA EQUIPMENT		
8	OPERATING WEIGHT		
9	TAKEOFF FUEL (*Gal.*)		
10	WATER INJ. FLUID (*Gal.*)		
11	TOTAL AIRCRAFT WEIGHT		

12 DISTRIBUTION OF ALLOWABLE LOAD (PAYLOAD)

COMPT	UPPER COMPARTMENTS PASSENGERS NO.	UPPER COMPARTMENTS PASSENGERS WEIGHT	UPPER COMPARTMENTS CARGO	COMPT	LOWER COMPARTMENTS PASSENGERS NO.	LOWER COMPARTMENTS PASSENGERS WEIGHT	LOWER COMPARTMENTS CARGO
A							
B							
C							
D							
E							
F							
G							
H							
I							
J							
K							
L							
M							
N							
O							
P							
FWD	BELLY						
AFT	BELLY						

CORRECTIONS (*Ref. 14*)

COMPT	ITEM	CHANGES (+ or −) WEIGHT	CHANGES (+ or −) [1] INDEX OR MOM/
TOTAL WEIGHT REMOVED		−	−
TOTAL WEIGHT ADDED		+	+
NET DIFFERENCE (*Ref. 14*)			

13	TAKEOFF CONDITION (*Uncorrected*)	
14	CORRECTIONS (*If required*)	
15	TAKEOFF CONDITION (*Corrected*)	
16	TAKEOFF C. G. IN % M. A. C. OR IN.	
17	LESS FUEL	
18	LESS AIR SUPPLY LOAD DROPPED	
19	MISC. VARIABLES	
20	ESTIMATED LANDING CONDITION	
21	ESTIMATED LANDING C. G. IN % M. A. C. OR IN.	

COMPUTED BY

SIGNATURE

WEIGHT AND BALANCE AUTHORITY

SIGNATURE

PILOT

SIGNATURE

NOTE.—THIS TRANSPORT CLEARANCE FORM HAS RESULTED FROM TRIPARTITE AGREEMENT AND NO FURTHER CHANGES MAY BE MADE TO IT WITHOUT PRIOR CONSIDERATION BY TRIPARTITE AUTHORITIES.

DD FORM 1 SEPT 54 365F

599287 U. S. GOVERNMENT PRINTING OFFICE 1961

SUBJECT, ARTICLE 342 ACCIDENT INVESTIGATION,
ENGINE EXAMINATION.

Inspection of engine 612093 indicated that it impacted the ground with the vertical centreline oriented essentially in a true vertical position as evidenced by the primary impact damage being concentrated along the bottom of the engine. It further appears that the engine was in a nose down attitude on impact as evidenced by the extent of damage to the first few low rotor stages and the fact that although the exhaust tail cone had broken off, it showed no evidence of primary damage.

The engine had broken into essentially three major sections:- 1. The low compressor section; 2. The high compressor, burner and first stage turbine, and 3. The second and third stage turbine, engine rear mount section and equipment aft of this point.

There was no evidence of excessive temperature inside the engine, nor of any structural failure prior to impact. The discoloration of the hot section parts was entirely normal.

[redacted] 25X1A

Field Engineer,
Pratt & Whitney Aircraft Division

[redacted] 25X1A

TAB

25X1A

LIFE SCIENCES REPORT OF AN INDIVIDUAL INVOLVED IN AN AF ACCIDENT/INCIDENT
SECTION A. AIRCRAFT ACCIDENT/INCIDENT

1 GENERAL

a. Name, Grade, Serial No.	b. Assigned Base and Command	c. Aircraft Type, Model, Series (as applicable)
	WRSP-IV	U-2F

d. Primary AFSC	e. Duty Assignment	f. Current Rating	g. Age	h. Height	i. Weight	j. Years of Educ.	k. Activity at time of Accident/Incident
	Pilot			72	172	16	IFR-Breakaway

2 MEDICAL DATA

a. Degree of Injury:	b. Days Hospitalized	c. Days In Quarters	d. Total Days to be Lost
None ___ Minor X Major ___ Fatal ___ Missing ___	None	0	0

e. Waiver: Yes ___ No X Specify ___

f. If Fatal: Was Autopsy Form Submitted to AFIP? Yes ___ No ___
Were Specimens Submitted to AFIP? Yes ___ No ___ Frozen ___ Fixed ___

g. Diagnosis: Describe Fatalities, Injuries and Causes (Use Basic Diagnostic Nomenclature, AFR 160-13). Specify Primary Injury in non-fatal or primary cause of death in fatal.

Minor laceration, right knee and minor abbrasions, lat surface of right knee, Contusion over sternum

3 PHYSIOLOGICAL INCIDENT (Complete Items 1, 2, 3, 4, 5, 6, 7, and 10 as applicable)

a. Type Mission	b. Duration of Flight	c. Single Ship ☐ Formation ☐	d. Ind. Alt at time of inc.

e. Cabin Alt at time of Inc. | f. Time at Alt. | hrs. Aircraft Pressurization ground checked on

g. Did you use O_2 Preflight?	h. Regulator Setting	i. Oxygen System Pressure at takeoff:
Check: Yes ☐ No ☐	Last Check on	
	Type Regulator Used ___	at time of Incdt ___ Capacity ___

j. Last Check of O_2 System	k. Type of Mask ___ Adequate Fit: Yes ☐ No ☐	l. Time Lapse between incident and examination
on	Checked within 15 days ☐ 30 days ☐ Over 30 ☐	

m. Specify Tests (Specify Type and Results):

CO | Blood Sugar | High | CO_2

n. Attach a diagram of the flight profile involved, use additional sheet(s)

4 PSYCHOPHYSIOLOGICAL FACTORS

Check only factors present. Explain the basis for your determination in Item 10. Cite all clinical and lab evidence

FACTOR	Not Sig	CONTRIBUTED TO ACCIDENT: Definite	Probable	Possible	FACTOR	Not Sig	CONTRIBUTED TO ACCIDENT: Definite	Probable	Possible
Aging					Preoccupation/ Channelized Attention				
Alcohol					Other				
Air Sickness					Fatigue				
Auditory Interference					G-Forces				
Body Build					Hyperventilation				
Boredom					Hypoxia				
Cardiovascular					Illness				
Discipline					Language Barrier				
Distraction					Missed Meals				
Drugs and/or Self-Medication					Motivation/Morale				
Dysbarism (Specify)					Spatial Disorientation				
Emotional Disturbances					Task Over-saturation				
Anxiety					Unconsciousness				
Fear					Vertigo				
Get-Homeitis					Visual Restriction				
Irrational Behavior					Other Related Factors (Explain)				
Over Confidence					No Factors Present	X			
Panic									

5 ENVIRONMENTAL FACTORS (Check only factors present. Explain the basis for your determination in Item 10. Cite all clinical and lab evidence)

FACTOR	Not Sig	CONTRIBUTED TO ACCIDENT: Definite	Probable	Possible	FACTOR	Not Sig	CONTRIBUTED TO ACCIDENT: Definite	Probable	Possible
Air Pressure, i.e. Rapid Decompression, Pressure Loss, Etc., Specify					Smoke, fumes				
Cold					Vibration				
Deceleration Forces					Weather				
Heat					Windblast				
Light Intensity					Other Related Factors, Specify				
Noise					No Factors Present	X			

6 TRAINING RELATED TO THIS ACCIDENT/INCIDENT (Give Dates Accomplished)

a. Ejection Seat Training: Seat Simulator X Ejection Seat Tower ___ Previous Ejection No
Lectures/Demonstrations X Other (Explain) ___

HOURS	
Total Flying Time	1270.15
This model	1372.35

b. Survival Training:
USAF School: Ground X Water ___ Arctic ___ Jungle ___ Lectures/Demonstrations ___ Other Stead - 2 wks

c. Parachute Training:
Jump School: No Nr. Previous Jumps 0 Lectures/Demonstrations X Other ----

d. Physiological Training	e. Last Chamber Flight	f. Type Flight
Date 8 Nov 63 Place WAFB	Date 8 Nov 63 Place WAFB	Refresher

g. AFSC or Other Training	h. Name of Course or OJT	i. Dates Attended	j. Aptitude Scores Applicable
N/A			

7 **PERSONAL, PROTECTIVE AND SURVIVAL EQUIPMENT**

Specify all applicable items of equipment an appropriate line and specifically indicate all types of clothing worn and any other equipment that influenced operation.			NOT AVAILABLE	AVAILABLE		
				Not Used	Used	
ITEM	EXAMPLE	TYPE			Functioned	Failed
Head Protection	P-4B, HGU-2/P, HGU-6/P	HGU-- Sierra custom fit			X	
Eye Protection	Visor, Glasses	HGU		X		
Ear Protection	Ear Plugs, Muff	HGU			X	
Oxygen Mask	MBU-5/P MBU-3/P	MBU-5/P			X	
Clothing Worn	K-2B, A/P-22S-2	K-2B			X	
Clothing, Survival	Sleeping Bag, Down-Filled Suit	Standard		X		
Gloves	B-3A, MG-1	B-3A			X	
Footgear	Alert Boots, Combat Boots	Civ. jump boot			X	
Body Restraints	Seat Belt, Shoulder Harness	MA-6, MR-2A			X	
Life Vest	LPU-2/P		X			
Life Raft	PK-2, E-28		X			
Survival Kit, Container	Global, MD-1	Q-445			X	
Communications	URC-11, SARAH	URT-21, URC-10			X	
Other Signaling Devices	Flares, Mirrors, Whistle	Strobe, MK-13			X	
Rations	Food/Water, Provided/Forged	ST-1		X		
Survival Equipment	Rifle, Fishing Gear	Standard items		X		
Seat	Fwd/Rear Facing, Side, Fixed, Etc.	Fwd. Upward			X	
Other Equipment	Flashlight, etc. (Specify)	Strobe		X		

8 **ESCAPE**

a. General: (Check or fill in as appropriate)

Ejection [X] Bailout [ ] Landing Surface: Ground [X] Flat ___ Mtns X Ice/Snow ___ Hilly X Desert X Wooded X Swamp ___ Other (Exp) ___

Water [ ] Calm, Shallow ___ Deep ___ Rough, Shallow ___ Deep ___ Unknown [ ]

b. Surface Winds, Knots 10 (estimate if unk) | Dragged: Yes [ ] No [X] | Difficulty releasing Chute Canopy: Yes [ ] No [XX]

c. Reason for Jump (if more than one indicate):

Fuel Exhaustion ___ Fire ___ Engine Failure ___ Mid-Air Collision ___ Loss of Control X Other (Exp) Aircraft disintegration

d. Attitude of Aircraft:

Level X Inverted ___ Dive ___ Bank ___ Spin ___ Spiral ___ Climb ___ Other (Exp) slight nose down

e. Altitude above Surface 35,000 ft IAS 210 (if not known, approx.) Seat Catapult: Ballistic X Rocket

f. Difficulties Initiating Escape:

Centrifugal Force ___ Canopy/Hatch Failure ___ Injury ___ Actuating Controls (Specify) ___ Other (Exp) ___

g. Difficulties During and After Escape:

Clothing/Equipment Interference ___ Seat entangled in Shroud Lines ___ Legs/Arms entangled in Shroud Lines ___ Automatic Lap Belt Malfunction ___

Held onto Seat Actuating Controls ___ Did not Separate ___ No Diff X Other (Exp) ___

h. Seat Separation Device Installed: Yes ___ No X Functioned Properly: Yes ___ No ___

Failed: Webbing ___ Initiator ___ Other (Exp) ___

i. Type Parachute: Seat ___ Back BA-18 Canopy release: Single [ ] Double [X] Canopy: C-9 28' X 30' ___	Parachute equipped with Zero Delay Lanyard: Yes X No ___	Connected to D-ring: Yes ___ No X	Automatic Lanyard Connected: F-1B Yes X No ___

NOTE: A narrative statement will be prepared by each ejectee and/or survivor to include all information pertinent to escape and survival. The statement will be attached to this form. In the event of a fatality, the statement will be prepared by the Flight Surgeon. Refer to pilot's statement

9 **RESCUE AND/OR SURVIVAL**

a. Survival Involved (Survival implies any water landing and anytime over 1 hour before rescue on land) Yes ___ No X

b. Distance nearest Rescue (military base) 35 NM | Time before Rescue 45 min. XX. | Transmitted distress signal: Yes X No ___ Transmitted position fix: Yes X No ___

c. Effects of Exposure: Frostbite Immersion Sea Sickness Insect Bites Sunburn Dehydration Other (Explain)

d. Primary Factor in Rescue: Radio/Beacon (Specify) URT-21, URC-10 Flares X Mirror ___ Flashlight ___

Sea Marker Dye ___ Position Fix X Chaff ___ Local Population ___ Other (Specify) ___

e. Type Rescue: None Required ___ Ground Party, Military ___ Local Population ___ Helicopter/other Aircraft (Specify) Helecopter, H-21

Boat ___ Self Rescue (Walked Out) ___ Other (Specify) ___

10 **MEDICAL OFFICER'S RATIONALE, COMMENTS**

This section is to include comment on medical, personal, social, family, industrial hygiene and allied factors in incident causation, and a description and analysis of the factors in injury causation. Injuries should be correlated with the operations of personal equipment, malfunctions and failures of structures, systems, etc. Pertinent contributing factors in items 3 through 9 should be commented upon. Include X-ray and laboratory findings. Pertinent recommendations are encouraged.

LABORATORY RESULTS: Carbon Monoxide - less than 8% saturation
Carbon Dioxide - 24 MEQ/liter
Blood Alcohol - 0.046 mgm/ml
Blood Sugar - 94 mgm%

NOTE: See Life Sciences Comments and Recommendations, Tab D. & C

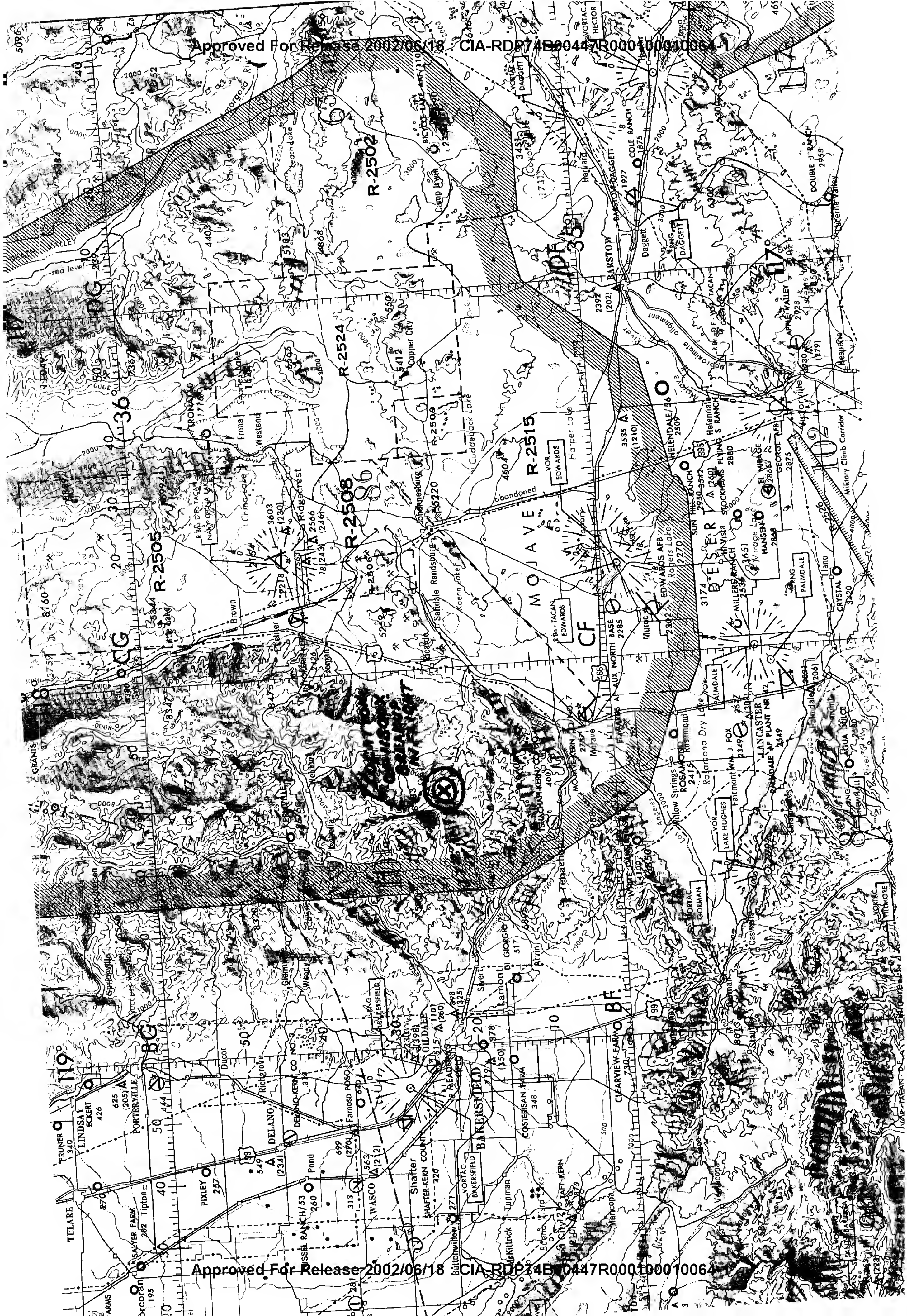
25X1A

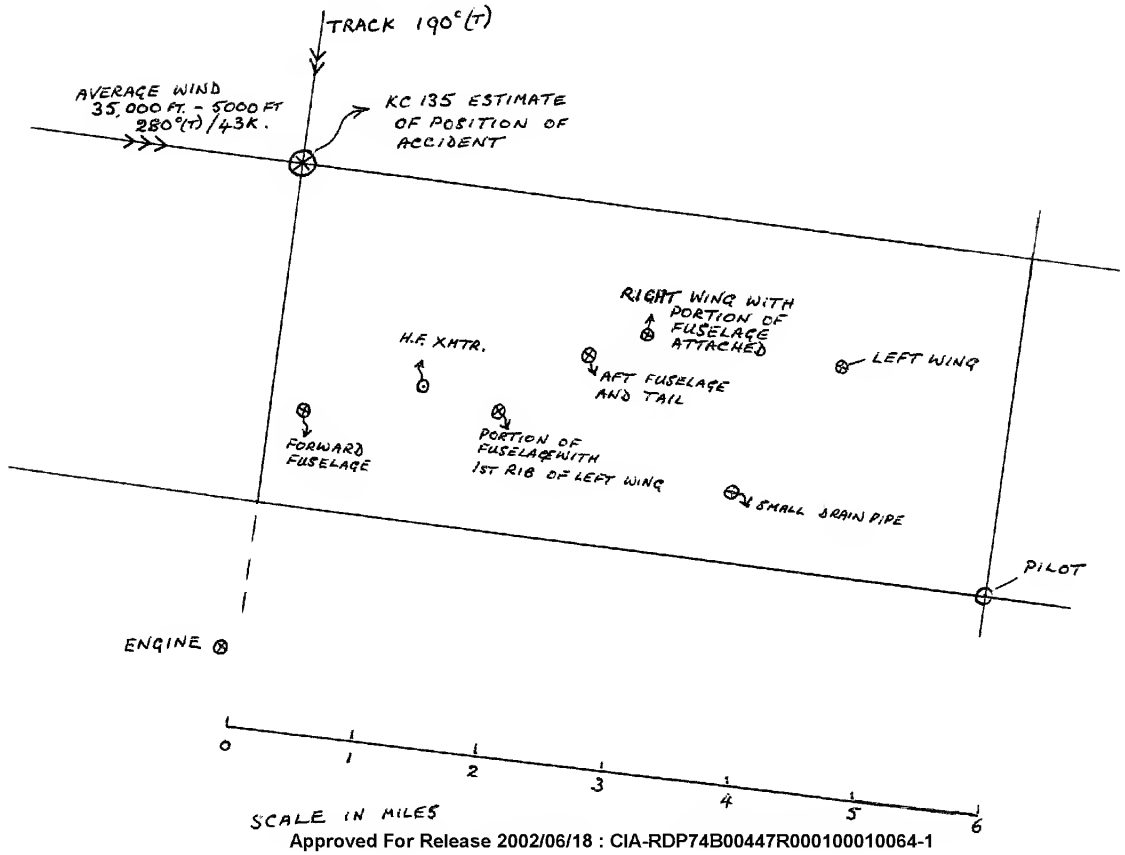
Date	Typed Name, Grade and Title	
15 MAR 1966	Major, USAF, MC Senior Flight Surgeon	

25X1A

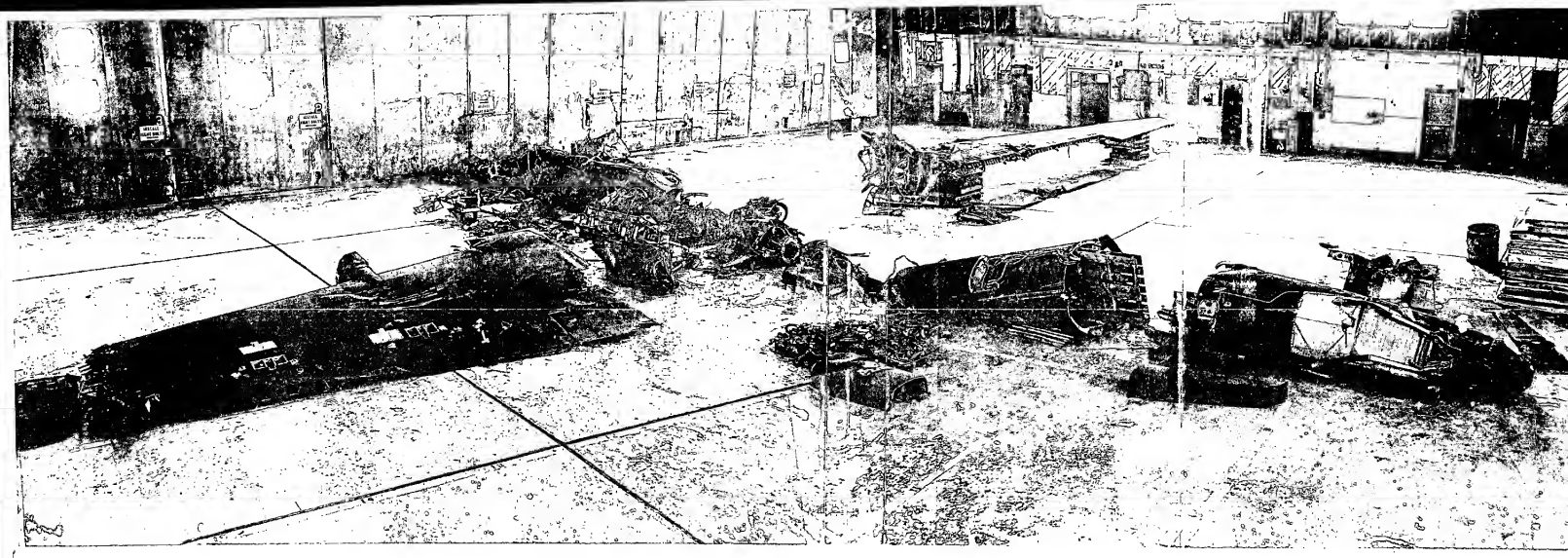
AF FORM DEC 62 711g

TAB

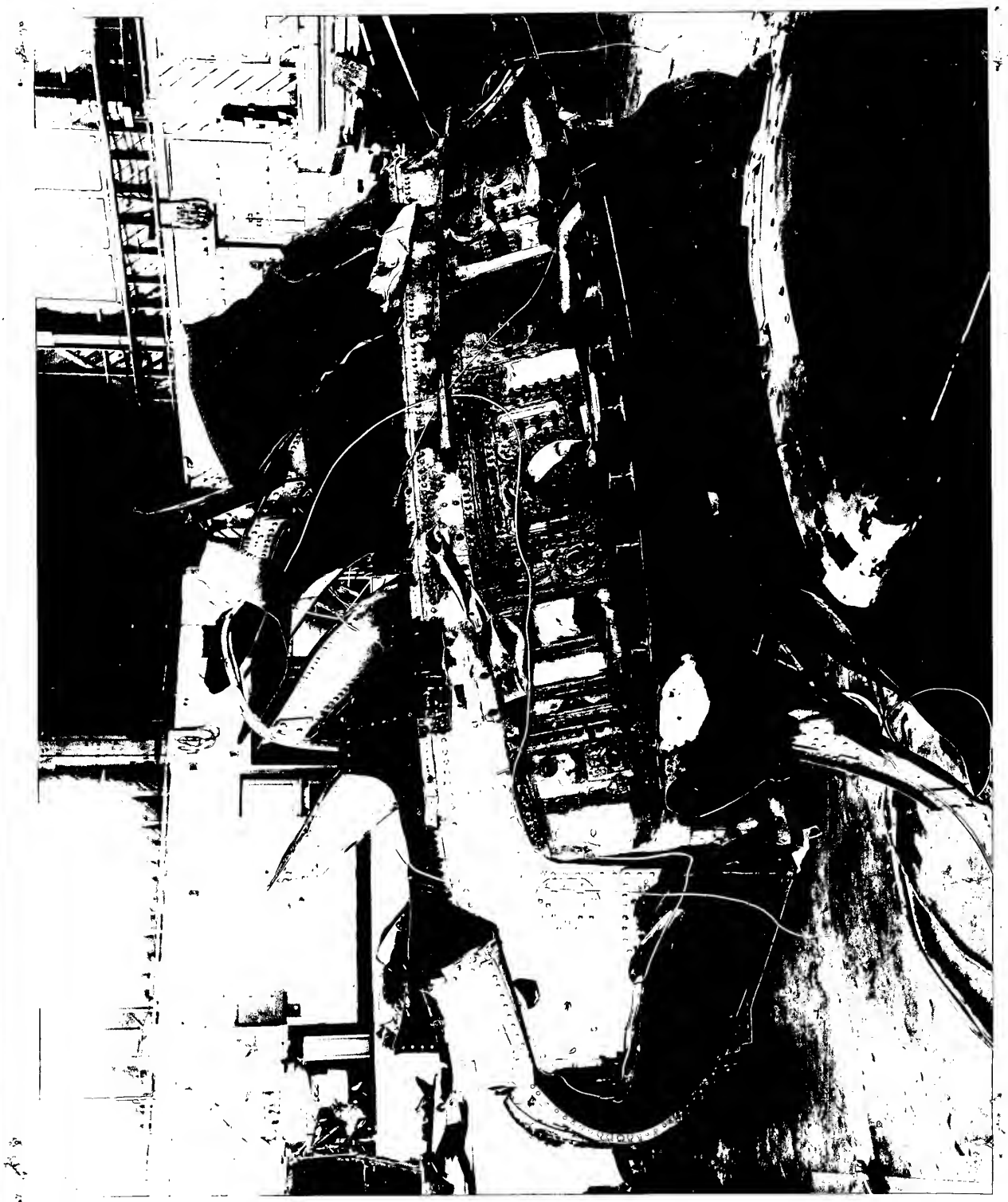




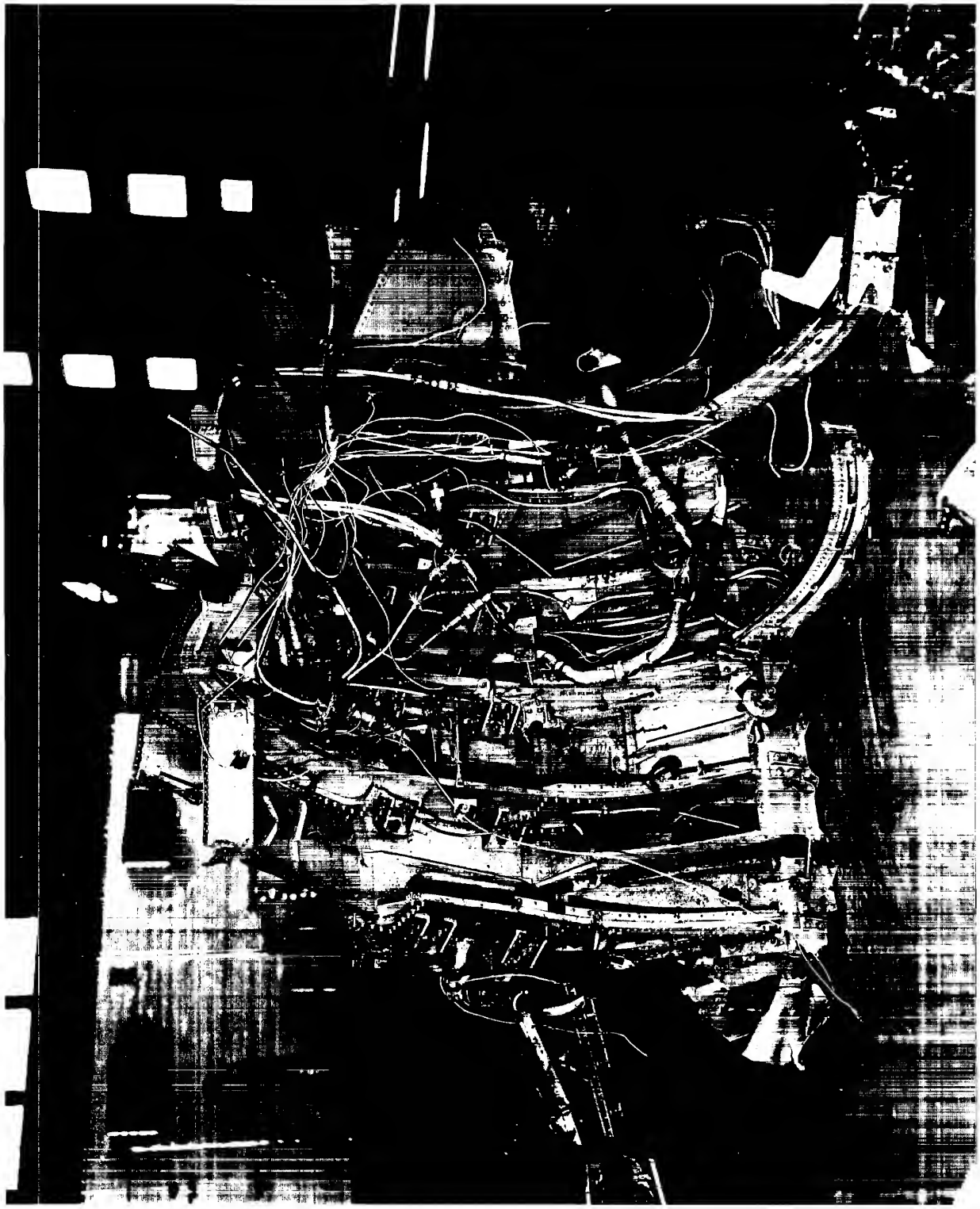
TAB



GENERAL VIEW OF COMPONENTS OF N800X (342) RECOVERED FROM THE FIELD. THE FORWARD FUSELAGE, AFT FUSELAGE AND TAIL SURFACES WERE PARTLY DISMANTLED FOR TRANSPORTATION PURPOSES AS WAS THE RIGHT WING FLAP. THE LEFT WING OUTER SECTION WAS BROKEN WHEN DROPPED FROM HELICOPTER.



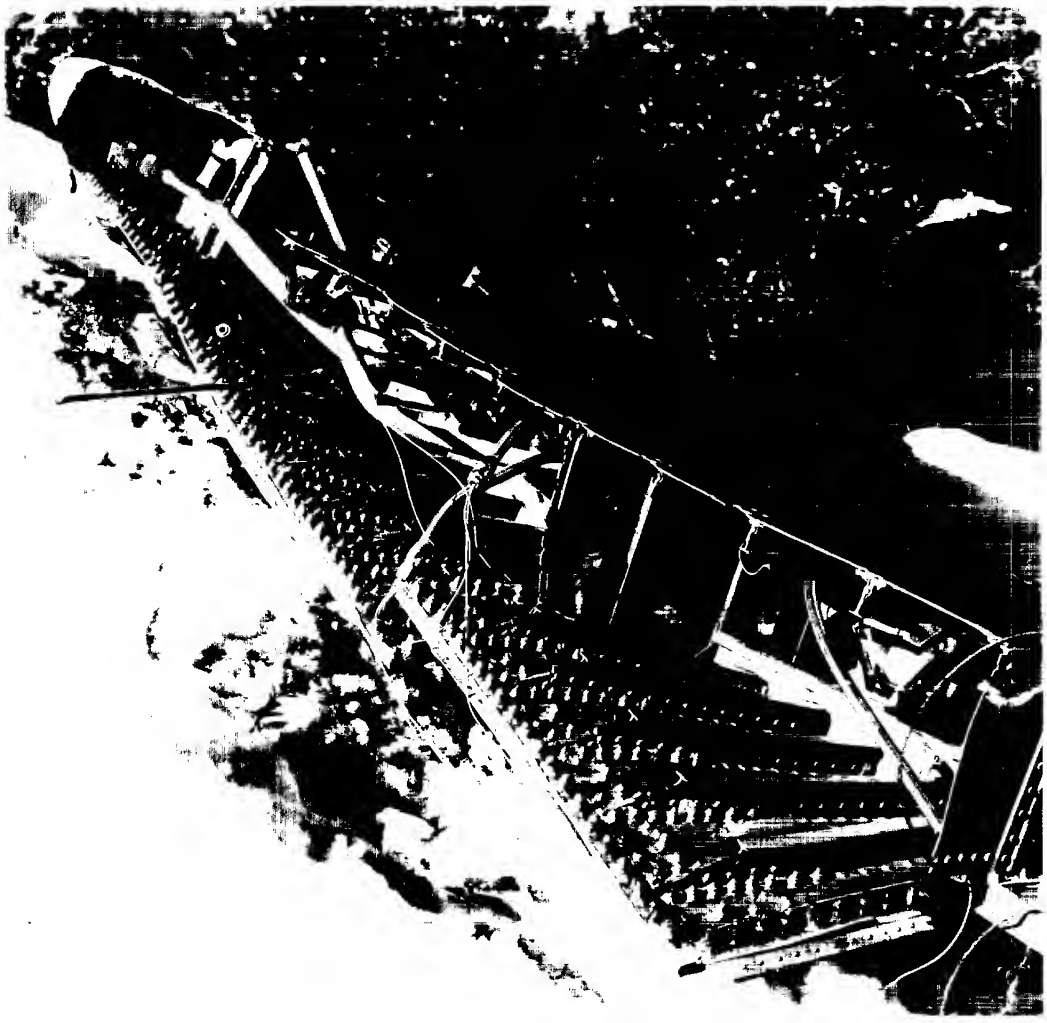
PART OF LEFT SIDE OF FUSELAGE WITH FIRST LEFT WING RIB ATTACHED SHOWING POINT OF INITIAL STRUCTURAL FAILURE.



PART OF LEFT SIDE OF FUSELAGE WITH FIRST LEFT WING RIB
SHWOING THE LEFT BALL BAT SUPPORT STRUCTURE BROKEN (ARROWS).

LEFT WING IN THE FIELD

LEFT WING IN THE FIELD (UPSIDE DOWN) SHOWING THE PRIMARY STRUCTURAL FAILURE POINT AT THE WING ROOT.



LEFT WING ROOT

RIGHT WING IN THE FIELD (UPSIDE DOWN)

RIGHT WING SHOWING PORTION OF FUSELAGE ATTACHED

AFT FUSELAGE SHOWING UNDERSIDE WITH RIGHT HORIZONTAL STABILIZER POINTING UP INTO BUSHES.

AFT FUSELAGE SHOWING TAIL SURFACES, RIGHT STABILIZER POINTING UP.

FORWARD FUSELAGE IN THE FIELD. LANDED ON THE RIGHT SIDE, ALMOST FLAT, BOUNCED OVER ONTO THE LEFT SIDE.

FORWARD FUSELAGE SHOWING COCKPIT AREA